

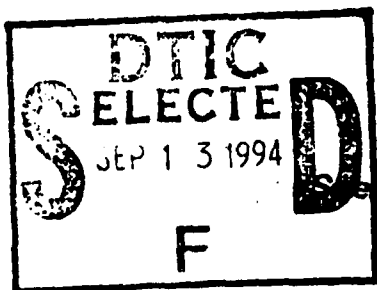
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ANTI-ARMOR DEFENSE DATA STUDY
(A2D2)

DRAFT FINAL REPORT
VOLUME I -- TECHNICAL REPORT

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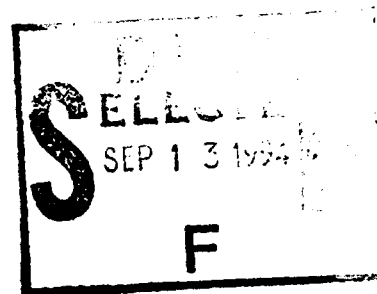
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SAIC RPT 90-xxxx

ANTI-ARMOR DEFENSE DATA STUDY
(A2D2)

DRAFT FINAL REPORT
VOLUME I -- TECHNICAL REPORT



MARCH 9, 1990

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PREPARED FOR
THE US ARMY CONCEPTS ANALYSIS AGENCY

UNDER

CONTRACT NUMBER MDA903-88-D-1000
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19. ABSTRACT (Continue on reverse if necessary and identify by block number)

The objective of the effort was to collect historical data on at least five actions where US was in defense of enemy armor. The data will be used in a joint US/UK analysis of the degradation in anti-armor defense effectiveness under combat conditions.

Seventeen combat actions were described in detail from the engagements at St. Barthelmy, Fantay and Abbaye Blanche, France during the battle of Mortain in August 1944.

These combat actions are presented in both narrative form and in data tables with all identified data displayed. A database and hard copy file was also prepared and delivered as a final product.

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STUDY SUMMARY

ANTI-ARMOR DEFENSE DATA STUDY (A2D2)

PRINCIPAL FINDINGS

There are data available at the level of detail required for evaluating US defensive anti-armor combat actions during WWII. They are primarily in the battles and engagements in the 1944 1945 North Europe theater. There are still surviving WWII veterans of these actions that provide a good source of data.

PRINCIPAL LIMITATIONS

Detailed data are not available in all WWII anti-armor battles and engagements, particularly in the North African campaigns.

SCOPE OF EFFORT

The scope of the effort was to collect, organize and document detailed historical data on five combat actions in which US forces were defending against enemy armor attack in WWII. Defensive actions were not to include tanks against tanks.

STUDY OBJECTIVE

The objective is to collect historical data on five US anti-tank actions in WWII. The data will be combined with comparable data assembled by the UK and used in a joint US/UK analysis of the degradation in anti-armor defense effectiveness under combat conditions. The degradation factors will allow projections of the combat performance of future anti-armor defenses to be based upon a balanced combination of historical and instrumented field test data.

BASIC APPROACH

The approach was phased with this study being Phase I. Phase I included expanding the list of 30 potential engagements for detailed data collection provided by the Center for Military History to 46 potential engagements, performing a preliminary literature search of source data for the 46 engagements, prioritizing the list and developing detailed data collection plans for the top ten engagements. Data was collected for the number 2 engagement, as chosen by the US Army Concepts Analysis Agency, to determine if the detail data was truly available and combat actions could be described at the level required. In addition, resources would be assessed for doing so. A database, hard copy files of all source material and narratives of the actions were developed. Phase II would be based upon acceptable findings in Phase I and would extend the number of combat actions developed.

REASON FOR PERFORMING THE STUDY

The UK Defense Operational Analysis Establishment (DOAE) has quantitatively compared small arms performance in actual combat with their performance in instrumented field trials. The latter generally form the basis for inputs to US Army wargames and simulations. Because of the promise of DOAE's approach, an informal agreement was reached between the US Deputy Under Secretary of the Army (Operations Research) and DOAE to pursue a collaborative study to extend this analysis to anti-tank weapons.

STUDY SPONSOR

US Army Concepts Analysis Agency

PRINCIPAL INVESTIGATOR

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Science Applications International Corporation

COMMENTS AND QUESTIONS

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Bethesda, MD 20814-2797

ACTION TAKEN AS RESULT OF FINDINGS

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TABLE OF CONTENTS

VOLUME 1	TECHNICAL REPORT	
SECTION	TITLE	PAGE
1	INTRODUCTION	
	1.1 Background.....	1-1
	1.2 Objective.....	1-1
	1.3 List of Engagements.....	1-2
	1.4 Data Requirements.....	1-2
	1.5 Methodology.....	1-3
2	LITERATURE SEARCH	
	2.1 General.....	2-1
	2.2 Potential Source Data Locations.....	2-4
	2.3 Primary Sources of Data.....	2-12
	2.4 Secondary Sources of Data.....	2-15
	2.5 Summary of Findings from Literature Search.....	2-15
3	EVALUATION OF DATA AVAILABILITY AND PRIORITIZATION OF ENGAGEMENTS	
	3.1 General.....	3-1
	3.2 Assessment Methodology.....	3-1
	3.3 Summary of Engagement Evaluation.....	3-7
4	DATA COLLECTION PLANS	
	4.1 General.....	4-1
	4.2 Dom Butgenbach, Belgium.....	4-2
	4.3 St. Barthelmy, France.....	4-5
	4.4 Abbaye Blanche, France.....	4-8
	4.5 Krinkelter, Belgium.....	4-11
	4.6 Rocherath, Belgium.....	4-13
	4.7 La Maison Rouge, France.....	4-15
	4.8 Hill 314, Mortain, France.....	4-18
	4.9 Stoutmont, Belgium.....	4-21
	4.10 Kommerscheidt, Germany.....	4-24
	4.11 Hosingen, Germany.....	4-27
	4.12 Summary.....	4-29
5	DETAILED DATA COLLECTION AND SUMMARIZATION OF MORTAIN	
	5.1 General.....	5-1
	5.2 Researching the Data.....	5-2
	5.3 Oral Interviews.....	5-2
	5.4 Summary of Data Collection.....	5-4

TABLE OF CONTENTS (cont')

6	SUMMARY OF FINDINGS AND RECOMMENDATIONS	
6.1	Findings.....	6-1
6.2	Recommendations.....	6-1

APPENDICES TO VOLUME I

A	LIST OF CONTRIBUTORS AND STATEMENT OF CONTRACTOR'S QUALITY REVIEW BOARD	
B	GOVERNMENT STATEMENT OF WORK	
C	BIBLIOGRAPHY	
D	INDEX OF FILES	
E	DETAILED EVALUATION OF ENGAGEMENTS	
F	TANK DESTROYER BATTALION RECORD SEARCH	

VOLUME II US ANTI-TANK DEFENSE AT MORTAIN, FRANCE (AUGUST, 1944)

LIST OF TABLES

TABLE	TITLE	PAGE
1-1	List of Engagements for Assessment.....	1-3
1-2	Data Collection Objectives.....	1-4
2-1	List of Engagements for Assessment.....	2-2
2-2	Source Locations and Types Surveyed.....	2-4
3-1	Data Collection Objectives.....	3-2
3-2	Ordering of Engagements.....	3-6
4-1	Milestone Schedule for Data Collection on Dom Butgenbach, Belgium.....	4-3
4-2	Milestone Schedule for Data Collection on St. Barthelmy, France.....	4-5
4-3	Milestone Schedule for Data Collection on Abbaye Blanche, France.....	4-8
4-4	Milestone Schedule for Data Collection on Krinkelter, Belgium.....	4-11
4-5	Milestone Schedule for Data Collection on Rocherath, Belgium.....	4-13
4-6	Milestone Schedule for Data Collection on La Maison Rouge, France.....	4-15
4-7	Milestone Schedule for Data Collection on Hill 314, Mortain, France.....	4-18
4-8	Milestone Schedule for Data Collection on Stoumont, Belgium.....	4-21
4-9	Milestone Schedule for Data Collection on Kommerscheidt, Germany.....	4-25
4-10	Milestone Schedule for Data Collection on Hosingen, Germany.....	4-27
5-1	Example of Combat Action Data Table.....	5-3

SECTION 1

INTRODUCTION

1.1 BACKGROUND

It is widely recognized that weapon performance in combat is much lower than anticipated from firing range or field experimentation results. Over the last several years, researchers at the United Kingdom's Defence Operational Analysis Establishment (DOAE) have quantitatively compared small arms performance in actual combat with their performance in instrumented field trials. These results confirmed and extended earlier work (e.g., S.L.A. Marshall's work during WWII and Korea) that reported large differences between weapon performance in combat and estimates based on either firing range or field trial results. This is a matter of considerable interest, because the latter generally forms the basis for inputs to US Army wargames and simulations. Because of the promise of DOAE's approach, an informal agreement was reached between the US Deputy Under Secretary of the Army (Operations Research) and DOAE to pursue a collaborative study to extend this analysis to anti-tank weapons. In particular, it was envisioned that US data could be collected for several actions in which US forces were defending against enemy armor attacks. A preliminary evaluation of the feasibility and desired scope of this effort was performed by the US Army Center for Military History (CMH) prior to the development of the Statement of Work for this effort. Their study was aimed at verifying the availability of records likely to contain useful data on the performance of US anti-tank weapons. The results of their study identified 30 candidate anti-tank engagements that had potential for developing at least 30 actions.

1.2 OBJECTIVE

The objective of this effort is to perform a more detailed literature search on the engagements identified to determine the availability of data and to collect detailed historical data on at least five combat actions from these engagements where US forces were defending against enemy armor attacks. The

detailed data collection for these five actions will determine if there are sufficient valid data to support the envisioned larger analysis. If the initial data collection indicates feasibility, then the effort will be the initial increment of a larger effort in which data will be accumulated on one hundred combat actions. The total data set will then be used in a joint US/UK analysis of the degradation in anti-armor defense effectiveness under combat conditions. The resulting degradation factors will allow projections of the combat performance of future anti-armor defenses to be based upon a balanced combination of historical and instrumented field test data.

1.3 LIST OF ENGAGEMENTS

Upon initiation of this task order, SAIC identified an additional 17 engagements, based upon our own experience and knowledge, that were potential candidates and added these to the original list compiled by CMH and included in the SOW. Table 1-1 lists the 30 engagements identified by CMH (1 to 30) and the additional 17 added by SAIC (31-47). A further explanation of the engagements is given in Section 2.

1.4 DATA REQUIREMENTS

The Statement of Work included several references to desired data for anti-tank actions. Since the lists differed in some instances, further discussions were held with the Technical Monitor in order to consolidate and prioritize the data requirements. Table 1-2 presents the list of data collection objectives, ordered by those data elements required for an action to be of any value (primary), additional data that should be compiled (secondary), and those data that would be good to have as well (tertiary).

TABLE 1-1. LIST OF ENGAGEMENTS FOR ASSESSMENT

NO.	ENGAGEMENT	NO.	ENGAGEMENT
1	Sbeitla, Tunisia	23	Hotton, Belgium
2	Sbeitla, Tunisia (different units)	24	Stoumont, Germany
3	El Guettar, North Africa	25	Longchamps, Belgium (3 Jan)
4	Djebel el Guessa, North Africa	26	Longchamps, Belgium (4 Jan)
5	St. Jean-de-Daye, France (9 July)	27	Butzdorf & Tettingen, Germany
6	St. Jean-de-Daye, France (11 July)	28	Maison Rouge, France
7	Notre Dame-de-Cenilly, France	29	Bolsar, Germany
8	Near #7	30	Kirchboren, Germany
9	Near St. Denis-le-Gast, France	31	St. Barthelmy, France
10	Hill 317, Mortain, France	32	Gela, Sicily
11	Abbaye Blanche, France	33	Salerno, Italy
12	Arnaville, France	34	Anzio, Italy
13	Dieulouard Bridgehead, France	35	Arnhem
14	Luneville, France	36	Manhay Crossroads
15	Schmidt, France	37	Baraque de Fraiture, Belgium
16	Kommerscheidt, Germany	38	Clervaux
17	Distroff, Germany	39	Marnach, Luxembourg
18	Lucherberg, Germany	40	Rochefort, Belgium
19	Murringen, Germany	41	Le Gleize
20	Krinkelter Wald, Germany	42	Stavelot, Belgium
21	Rocherath, Belgium	43	Battle of Five Points, France
22	Dom Butgenbach, Germany	44	Hosingen, Germany
		45	Bastogne, France
		46	Heinerscheid, Luxembourg

1.5 METHODOLOGY

In responding to the SOW, SAIC proposed a phased approach to collecting the detailed data required. Phase I was structured to provide a better estimate of the feasibility of finding and collecting the detailed data needed and of the resources required to do so. Phase I consisted of the compilation of a list of at 46 engagements (expanding upon CMH's original 30 engagement list), a more comprehensive literature (source) search of the revised engagement list, prioritization of the list of engagements based upon the literature search, development of data collection plans for the top ten engagements, and, originally, the detailed preparation of one action from the top engagement.

TABLE 1-2. DATA COLLECTION OBJECTIVES

PRIMARY	SECONDARY	TERTIARY
Disposition of defensive weapons/location relative to attack	Artillery bombardment	Type of attack maneuver
Strength of US infantry	Obstacles	Quality of defensive preparation
Size and activity of infantry with armor attack	Meteorological data	Extent of warning and intelligence
No. and type of AT weapon in visual contact with the enemy	Time of day	Air/Artillery support and suppression
No. of enemy tanks, armor SP guns	Terrain	Overwatching vs. maneuvering tanks
US tanks present	Maximum operational effectiveness range	Supply of on-hand ammunition
Casualties (personnel)	Rounds fired by type	
No. and type of tank, SP gun casualties (enemy)	Maps	
Narrative		

Phase II would be recommended, given that Phase I was successful, and would involve the detailed data collection of the remaining nine actions from the ten that were originally requested.

The top engagements (based upon the amount of source material found during the literature search) came from the battle of Mortain, France in August 1944. The engagement at St. Barthelmy was selected as the candidate from which to describe one detailed action. As the detailed description of one action from St. Barthelmy progressed, it became evident that it was most efficient to collect data on all engagements and actions at Mortain at one time. As the data were analyzed and developed, SAIC found that descriptions, reports and interviews from Mortain were more abundant than originally thought. The Statement of Work

was amended to include 5 actions in the first Phase. In the end, SAIC was able to describe 14 actions from the engagements at Mortain in Phase I. It must be noted, however, that Mortain is a somewhat unique case in terms of amount of data recorded. It was a turning point in the campaign in Northwest Europe and, therefore, has been allotted a great deal of time and study, even at the time of its occurrence. In addition, SAIC was fortunate in finding veterans of those actions who substantially added to the repository of data available.

The accomplishment of this effort consisted of the following seven tasks,

- | | |
|--------|--|
| Task 1 | Assess Data for Candidate Engagements and Select Ten Engagements for Detailed Analysis |
| Task 2 | Prepare Data Collection Plans |
| Task 3 | Data Collection, Compilation, Organization and Appraisal |
| Task 4 | Identification of Forces Engaged in Action |
| Task 5 | Summarize the Data |
| Task 6 | Narrative Account of the Actions |
| Task 7 | Technical Report |

and was performed over a 8 month time period. SAIC used a team of operations research analysts, military historians and researchers to identify, collect, compile and summarize the data. The remaining sections of this report describe the results from the tasks that were performed in greater detail.

SECTION 2

LITERATURE SEARCH

2.1 GENERAL

The first part of Task 1 was to expand the list of 30 engagements that were provided with the Statement of Work. SAIC added an additional 16 engagements that were felt to have potential for developing anti-tank actions. Table 2-1 shows the list of 46 engagements, the date of the engagement and the units involved. This list was used as the basis for the literature search.

The second part of Task 1 was to perform a literature search of both primary and secondary source material for all of the engagements that were defined. Table 2-2 shows the list provided with the Statement of Work that requested the minimum sources that must be surveyed. In addition to the data types listed in the table, SAIC found that combat interviews and monographs written during or shortly after the war were the most useful sources of data.

Initially, SAIC made telephone contact with the librarian/reference historian at each source location. The data collection objectives were discussed in context with the objective of the project and each source queried for potential data. Based upon these discussions, SAIC determined if a trip to the location was necessary in order to examine and collect data. The following is a summary of the literature research effort. A complete bibliography of records and data examined is found in Appendix C of this Volume.

TABLE 2-1. LIST OF ENGAGEMENTS FOR ASSESSMENT

ENGAGEMENT	LOCATION	DATE	UNIT(S) INVOLVED
1	Sbeitla, Tunisia	17 February 1943	601st TDBN; German: Elements of Group Stenkhoﬀ, 21st Panzer Division
2	Sbeitla, Tunisia	17 February 1943	2/13th Armored Rgmt and 27th AFA BN; German: Elements of Group Stenkhoﬀ, 21st PD
3	El Guettar, N. Africa	23 March 1943	601st TD Battalion; 899th TD Battalion; various BNs 16th and 18th Inf, 1st Div
4	Djebel el Guessa, N. Africa	6 December 1943	Battery C, 27th AFA Battalion
5	St. Jean-de-Daye, France	9 July 1944	Company C, 823d TD Battalion, attached to 30th Infantry Division
6		11 July 1944	823d Tank Destroyer Battalion; 39th and 47th Infantry Regiments
7	Notre Dame-de-Cenilly, France	29 July 1944	1 co. arm'd infantry, 1 tank co. of 41st Arm'd Infantry, Cmbt Cnd B, 2d Arm'd Div; German: Elements of 2nd SS PD, 17th SS Eng BN, 6th Parachute Rgmt, 17th SS PGD
8	Near #7	29 July 1944	1 co. from 4th Div infantry BN atch'd to 2d Arm'd Div, 78th AFA BN, 702rd TDBN
9	Near St. Denis-le-Gast, France	29 July 1944	Elements of same units as in Actions 7, 8
10	Hill 317, Mortain, France	7-12 August 1944	2/120th Infantry, 30th Division; Company K from 3/120th Infantry
11	Abbaye Blanche, France	7-12 August 1944	1st Platoon, Antitank Company, 120th Infantry
12	Arnaville, France	10 September 1944	Company C, 1/10th Infantry, 5th Infantry Division
13	Dieulouard Bridgehead, France	13 September 1944	Elements of 317th and 318th Infantry Regiments; 702d Tank BN; 313 Field Arty BN
14	Luneville, France	18 September 1944	42d Cavalry Squadron, 2d Cavalry Group, XII Corps
15	Schmidt, France	4 November 1944	Companies L and K, 3/112th Infantry, 28th Infantry Division
16	Kommerscheidt, Germany	4 November 1944	3/110th Infantry, 28th Infantry Division, and others
17	Distroff, Germany	15 November 1944	2/358th Infantry, 90th Infantry Div; 712th Tk BN and 773d TDBN; German: 25th PGD
18	Lucherberg, Germany	5 December 1944	Company F, 145th Infantry, 104th I.D.; German: 8th Rgmt, 3d Parachute Div
19	Murringen, Belgium	17 December 1944	Company E, 2/394th Infantry, 99th Infantry Division
20	Krinkeiter Wald, Belgium	17 December 1944	3/23d Infantry, 2d Infantry Division
21	Rocherath, Belgium	17 December 1944	1/9th Infantry 2d Infantry Division; with three guns from 644th TD Battalion
22	Dom Butgenbach, Belgium	19-22 December 1944	2/26th Infantry, 1st Infantry Div; 5th FA BN, 33d FA BN; 26th CBT; 634th TDBN
23	Hotton, Belgium	21 December 1944	51st Combat Engineer Battalion

TABLE 2-1. LIST OF ENGAGEMENTS (cont')

ENGAGEMENT	LOCATION	DATE	UNIT(S) INVOLVED
24	Stoumont, Belgium	20 December 1944	1/119th Infantry, 30th Infantry Division, + 1 tank company from 740th Tank Bn
25	Longchamps, Belgium	3 January 1945	2d Battalion, 502d Parachute Infantry, 101st Airborne Division; 81st AAA Bn
26	Longchamps, Belgium	4 January 1945	Elements of 101st Airborne Div; German: <u>104 Panzer Grenadier Rgmt, 15th PGD</u>
27	Butzdorf & Tettingen, Ger	18 January 1945	Elements of 94th Infantry Division; German: <u>11 Panzer Division</u>
28	Maison Rouge, France	24 January 1945	Company I, 3/15th Infantry, 3d Infantry Division
29	Bolsar, Germany	23-24 February 1945	406th Infantry Regiment, 102d Infantry Division; German: 363rd Infantry Division
30	Kirchboren, Germany	30 March 1945	"Task Force Richardson", 3d Armored Division
31	St. Barthelmy (Mortain)	6-11 August 1944	823d TD Battalion
32	Gela, Sicily	11 July 1943	1st ID, 2d AD, and 82d Abn
33	Salerno, Italy	13 September 1943	36th and 45th IDs
34	Anzio, Italy	16-17 Feb 1943	3d ID
35	Arnhem	9 December 1944	
36	Manhay Crossroads		7th AD, 82d AbnD
37	Baraque de Fraiture, Belg	23 December 1944	7th AD, 82d AbnD
38	Clervaux		28th ID
39	Marnach, Luxembourg	16 December 1944	28th ID
40	Rochefort, Belgium	23-24 December 1944	84th ID
41	Le Gleize		30th ID
42	Stavelot, Belgium	17-19 December 1944	30th ID
43	Battle of Five Points		
44	Hosingen, Germany		
45	Bastogne, France	January 1945	
46	Heinerscheid, Luxembourg	16-17 December 1944	

TABLE 2-2. SOURCE LOCATIONS AND TYPES SURVEYED

SOURCE LOCATIONS	
1.	National Archives and Record Service, Washington, DC
2.	Washington National Records Center, Suitland, MD
3.	US Army Center of Military History, Washington, DC
4.	US Army Military History Institute, Carlisle, PA
5.	US Military Academy (History Department Library), West Point, NY
6.	US Army Infantry Center and School, Ft. Benning, GA
7.	US Army Armor Center and School, Ft. Knox, KY
8.	US Army Artillery Center and School, Ft. Sill, OK
9.	US Army Combat Studies Institute, Ft. Leavenworth, KS
10.	US Air War College, Maxwell Air Force Base, AL
11.	US Army Combat Developments Experimentation Command, Fort Ord, CA
12.	German Archives, Washington, DC and Freiburg, Germany
SOURCE TYPES	
1.	Branch Journals
2.	Unit Histories
3.	Military Periodicals
4.	Individual and Unit Citations
5.	Morning Reports
6.	Histories (independently by historians)

2.2 POTENTIAL SOURCE DATA LOCATIONS

The Statement of Work requested that the sources listed in Table 2-2 be surveyed for data. The following subsections describe the findings at each of the locations and provide our assessment of their usefulness to this project.

2.2.1 National Archives and Record Service, Washington, DC

The National Archives in Washington contain German records from WWII. American records are found at Suitland, MD. German records were not globally surveyed for all engagements as the US records were. Because of the initial uncertainty in finding the data detail in the US records, no effort was place on researching German records until the engagements for the detailed combat action descriptions had been identified, based upon data availability in US records. At that time, the German records were researched only for those engagements.

German records available at the National Archives were reviewed for any German units participating in the engagements in the battle of Mortain. Even though records existed for these units, our search did not reveal any records for the time period of August 1944 for these units. Other records for this timeframe were too aggregated for the purposes of this project. However, our research did produce monographs written by captured German officers that provided information relevant to the battle of Mortain. These monographs included information such as number of tanks available at the German division level for the battle at Mortain, plus planned strategy for the German thrust. These monographs proved useful for corroboration of data found in American records and for background information. The monographs written in German were translated for use in this research effort.

2.2.2 Washington National Records Center, Suitland, MD

The points of contact at the Washington National Records Center in Suitland are Mr. Richard Boylan and Mr. Kevin Abing. Mr. Boylan provided a great deal of assistance to SAIC in locating war records pertaining to this study. Fairly complete records exist for the WWII Infantry, Armor and Airborne Divisions and for the Tank Destroyer Battalions (TDBN). In addition, remaining records from the former Tank Destroyer Command at Fort Hood are now at Suitland, although they

have not been catalogued. Files for Combat Interviews and Miscellaneous were also examined.

The division and TDBN records include an assortment of G-1, G-2, and G-3 Reports, S-2 and S-3 Reports, After Action Reports, Journals, General Orders, message files, maps and other miscellaneous records. These records are referenced by division, regiment, battalion, and occasionally company, depending upon what records survived and were given to the archives. Researchers found information of varying quality. Usually, the Infantry or Armor division records are informative as to location, weather conditions, terrain, the participants in the action, and the outcome, but specific data on anti-armor weapons are generally not found in these records. Anti-tank (AT) companies (supplemented with towed AT weapons) were organic to the Infantry segments, Armored Infantry Battalion and Tank Destroyer Battalions; but the Infantry division records found at the company level were for the infantry companies and seldom discussed the anti-tank companies.

The TDBN records were much better in providing the detail required for anti-tank actions. There was a varying degree of detail between battalion records. Some battalions provided much detail but others were very summary. The prioritization of the 47 engagements depended to a large degree on the records of the TDBNs involved in the engagement since better data can be found here.

Combat interviews are the other category of records which provide the best detail on anti-tank actions. The larger, more important, and later battles of WWII had fairly extensive interviews done. Good interviews appear to be available for the battles of the Ardennes and later. These generally have maps, details of weapons used, ammunition fired and kills.

2.2.3 US Army Center of Military History, Washington, DC

The Center of Military History (CMH) has holdings of manuscripts written by CMH on various WWII battles. Hannah Zeidlik, the reference librarian, assisted in locating review copies of the manuscript file. These manuscripts contained information that may be useful for collecting anti-armor data for the specific engagements they reference.

Also in the CMH Library are Unit histories, Tank Destroyer Battalion histories, the Green Books, and other secondary sources. These sources are useful in understanding the overall and background events of the actions, but did not contain specific information at the level of detail needed for this study.

2.2.4 US Army Military History Institute, Carlisle Barracks, Pennsylvania

SAIC visited the Military History Institute to examine any information there on tank destroyers. There is a special reference file the library has prepared on TDBNs. Much of the material is available at the Washington National Records Center, Suitland, MD; however, there are some historical unit data that were not found elsewhere. We obtained a copy of the file which might be useful to specific cases.

The Andrew Bruce papers were examined from which the booklet TD Combat in Tunisia was copied (Andrew Bruce was involved with tank destroyer ordnance during WWII and afterwards). This is probably the best source for battle at El Guettar, Africa. In addition, fourteen unnumbered boxes containing The George B. Jarrett Papers are located on the second floor in the archives. The collection has not yet been arranged, and most of the contents are in unlabeled folders. More than half of it is personal papers or clippings from published magazines and newspapers. Several boxes contain material of possible value to this project (the Bibliography in Appendix C gives more detail on these papers).

There were a small number of TDBN histories but few of these addressed the detail desired. The 607th, 811th, and 628th did have some, but these are also available at CMH in Washington.

2.2.5 US Military Academy, West Point, NY

SAIC contacted Mr. Hoss, Documents Librarian, and Ms. Dawn Crumpler, Special Collections. Neither of these librarians located any sources at the USMA library with the details required for this project.

2.2.6 US Army Infantry Center and School, Ft. Benning, GA

SAIC contacted Ms. Betty Van Sickle, the head librarian of the US Army Infantry Center at Ft. Benning, Georgia. Based upon her recommendation, SAIC spent two days at Ft. Benning surveying the information there. Mr. Charles White, the Infantry Center historian, assisted in locating secondary sources. SAIC also contacted the Director of the Infantry Center Museum, Mr. Dick Grube, however, the museum did not have any relevant information for this project.

The library has a card index file which is well organized to support this project. The subject files include both anti-tank and tank destroyers. There are also monograph files isolated in the card index drawers. In addition to published sources, the library has a number of official WWII reports from overseas which were briefly researched for valid information for this project. In general, these reports served as lessons learned and general observations rather than detailed descriptions of engagements.

The most valuable resource at the Infantry Center is the monograph collection. Apparently, from 1947 to 1950, officers in the advanced course were required to write monographs about their experiences during the war. While their quality varies, some of the monographs are very detailed and focus on units as small as platoons. The monographs frequently used the footnote "personal

knowledge" demonstrating that they included information which is unavailable elsewhere. Most of the monographs are still available as original documents, but all are available on microfilm.

2.2.7 US Army Armor Center and School, Ft. Knox, KY

SAIC contacted and visited Mr. William Hansen, Librarian, at the US Army Armor Center at Ft. Knox, Kentucky. The US Army Armor Center contains three types of records. The first and most numerous are published books which are of minimal value to the search for primary source material. Shelby Stanton's US Army Order of Battle in World War II has been used, however, as a guide to determine which tank destroyer battalions and groups to research further. These tank destroyer battalions and groups are listed by equipment type, i.e., towed 3" gun, M-10, M-18, M-36, etc. This source helped narrow the examination of sources by limiting the search to records of towed tank destroyer units (which was the proposed scope of this initial effort). The quarterly magazine, "After the Battle", was also used. While these articles have no bibliographies and cannot be used directly in this project, they provide background material to the reader who is unfamiliar with the larger scope of the small-scale engagements.

The second major asset of the Armor School Library is the collection of original records, including unit (down to battalion level) After Action Reports, battle experience analyses and contemporary concept studies. These were searched exhaustively for any information at the level of detail that this project requires. While very little of these data are detailed, they may be useful for corroboration or to close the gaps in data from other sources.

The third resource at the Armor School is the microfilm archives which also consist of primary document copies. These files were thoroughly reviewed for content pertinent to this project.

While at Ft. Knox, SAIC also visited the library of the Patton Museum of Armor and Cavalry, headed by Mr. David Holt. The museum library contains, almost

exclusively, data on armored hardware; that is, technical information on tanks and other armored vehicles, weapons specifications, etc. Little data of value to this project are available, but some pertinent background or supplementary data are available. The library contains the papers of COL R.J. Icks, a noted Ordnance historian.

2.2.8 US Army Artillery Center and School, Ft. Sill, OK

SAIC contacted Dr. Dastrup of the Historical Office and Ms. Relph, the librarian at the US Army Artillery Center and School in Ft. Sill, Oklahoma. Data at the level of detail required were not available, however, the Center did have some general tank destroyer information. In particular, a document on the 1948 Anti-tank Conference is available and can be borrowed through library channels.

2.2.9 US Army Combat Studies Institute, Ft. Leavenworth, KS

SAIC contacted Mr. John Rogers, Reference Librarian, and Ms. Tina Byers, Information Services. Neither individual believed that Leavenworth holdings could assist this project as any relevant information has been sent to Carlisle.

2.2.10 US Air War College, Maxwell Air Force Base, AL

SAIC contacted the assistant librarian at the US Air War College about relevant information for this project. The librarian confirmed that the Air War College has virtually no information of any specific anti-armor action relative to land forces in a defensive mode.

2.2.11 US Army Combat Developments Experimentation Command, Ft. Ord, CA

The assistant librarian at the US Army Combat Developments Experimentation Command was contacted by SAIC. No historical information relevant to this project was available.

2.2.12 German Archives

SAIC used one of our consultants in Germany, Dr. Arthur G. Volz, who reviewed his own extensive holdings and visited the Bibliothek fur Zeitgeschichte (Library for Contemporary History) and the Wurttembergische Landesbibliothek (Wurttemberg State Library) in Stuttgart. The Bibliothek fur Zeitgeschichte has an extensive and detailed subject catalog which covers periodical literature and sections of books as well as complete works. Dr. Volz located several secondary source books which pertained to the Mortain battle. SAIC received the tables of contents and bibliographies from these books for further evaluation.

After comparing the requirements of this project with the available material located in Germany, Dr. Volz was not optimistic of finding information at the level of detail from the German records required by this project. In the later periods of the war, the German records become more skimpy than at the beginning, for instance, in North Africa. However, the material he did identify was useful for background information and for cross checking some of the information found in the American records. For example, it is not uncommon for the American and German records to differ in recapping the events of an action. At Hill 314 in Mortain, the German records report that virtually all armored vehicles seem to have been APCs, with only four assault guns engaged; yet the American records state the Germans launched "another bitter attack with a large force of tanks."

2.2.13 The Pentagon Library, Washington, DC

The US Army Official History of World War II, the "Green Books", and a fairly complete set of Unit Histories are at the Pentagon Library. These books aided the researcher by providing background material for the engagements being researched.

2.3 PRIMARY SOURCES OF DATA

During the course of the literature search, the research team identified five different primary sources of data. The following is a summary of the usefulness of each source of information.

2.3.1 Division records

The Infantry and Armor Division Unit records at the Washington National Records Center in Suitland, MD contain much useful information. They include a variety of After Action Reports, Journals and Files, G-2 and G-3 Operational Summaries, Unit histories, S-2 and S-3 reports, plus other miscellaneous records of the Units involved in the engagements being researched. The Infantry and Armor Division Unit records were the first step in finding information at the level of detail required by this project.

2.3.2 TDBN Records

The TDBN records are a better source of the detailed data that is being sought for this project. These records are separately filed from the Infantry and Armor Division records. Our analysis determined that reliable and explicit data are not very plentiful in the records of American Army Units until after

mid-1943. This practically eliminates the North Africa Theater of Operations. In Italy, there were only a few cases of significant German tanks against the Allies, as the terrain constrained their use. German armor was massed against the Salerno and Anzio beachheads where the US seems to have successfully relied on air, and in particular, field artillery to ward off the German tanks. There were tank and anti-tank engagements, but researchers were unable to find detailed accounts. Most TDBN records in Italy show these units were used extensively as a supplement to field artillery although Anzio and Salerno did have some real direct-fire anti-tank action. However, there will be problems in separating effects of TDBN actions from those of Allied armor and artillery. Also at Anzio, the presence of British forces in close proximity to the those of the US may prevent identifying results from distinctively US unit efforts.

It is largely in the Western European Theater of Operations (ETO) that American records and a few significant German armored offensives (mostly counterattacks) combine to provide the best data for this project. Even here, it will be mostly during the latter half of 1944 and the first two months of 1945 when the Germans still have the armor to use in such endeavors against the US Army. German records start to lose their reliability after the Allied breakout from Normandy in July of 1944.

In reviewing the full scope of the TDBN files, certain patterns were discernable. Unit whose records were journals and had many map overlays were generally employed as field artillery battalions. Units entering France from the South (Operation DRAGON) encountered very little German armor, even when they fought in Alsace. Of the 64 TDBNs in the European Theater of Operation, the better records are from the 601, 607, 609, 614, 701, 702, 703, 805, 823, and 899th TDBNs. Engagements which involved these units have the best probability of detailed data availability.

2.3.3 Combat Interviews

The combat interviews were the result of efforts by SLA Marshall's team of historians at the Headquarters, European Theater of Operations. After

engagements, members of the team interviewed participants down to the level of private soldier and sometimes produced detailed overlays of the combat actions. The combat interviews have proved to be the best source of information for the type of data required by this project.

There are 330 combat interviews at Suitland. The files are broadly organized by Infantry and Armored Divisions and Cavalry Groups. They are further sub-divided into particular campaigns and events the historian interviewers considered worth examining. Many good interviews concerning the Ardennes, Dec 1944-Jan 1945, anti-tank actions exist in these files. The very nature of the German armor-supported breakthrough make this period ideal for this project. Some of the combat interviews examined do suggest other periods to examine, especially for the time between the Normandy breakout, in July 1944, to Mortain in early August 1944; and again after Mortain through late September 1944.

2.3.4 Monographs

The monograph collection located at Ft. Benning, GA appears to be a valuable resource. These are very similar to the combat interviews in the level of detail available. This source should be surveyed for each engagement.

2.3.5 Oral Interviews

SAIC established contact with veterans of the 823rd TDBN who supported the 30th Infantry Division at Mortain. Our initial access to these men was courtesy of the Tank Destroyer Association and its local representative, COL (Ret) Quintus Atkinson. Four veterans agreed to provide oral histories based upon their experience and recollection. These interviews proved to be an excellent source of information, both for confirming and adding to the written record data that had been collected. Although the war ended 45 years ago, they still had vivid memories of events that have never been recorded. On occasion, the interviews served to correct official reports on such data as gun positions and were also able to fill in details that were not recorded.

2.4 SECONDARY SOURCES OF DATA

2.4.1 Unit Histories

Unit histories, located at the US Army Pentagon Library, US Army Center of Military History, and the Washington National Records Center were used to initially research each engagement prior to searching the official records in the archives. It was necessary to have a basic understanding of the engagement as well as know what units were involved. The Unit histories also provide additional references where the detailed data required may be found.

2.4.2 The US Army's Official History of World War II

Known as the Green Books, this history provides background information useful in researching a particular World War II engagement. These books also reference other sources such as manuscripts which frequently contain detailed information.

2.5 SUMMARY OF FINDINGS FROM LITERATURE SEARCH

Several items became evident during the literature search task. These are:

- German records (and British records) are very good in the earlier parts of the war, particularly in North Africa. However, American records are very skimpy or scarce during that time. American records become much more useful during the latter stages of the war (1944-1945) with a corresponding decline in the amount of detailed information found in the German records. It is surmised that the American system of recording history was not well established in the beginning and little survives from the North African tank campaigns. Post-Italian battle records are much better for American forces, partly due to a better system and partly due to the fact that there were more periods of time when records could be prepared. However, many of the German records in the North Europe engagements were lost or not well documented because the Germans were on the run

during the last years of the war. This makes for an inequity between data available for friendly and enemy forces for a given engagement.

- Combat interviews were the most consistent source for the detailed data that was required. Those engagements for which combat interviews were done or monographs prepared by participants are the most likely to have the detail required for the anti-tank actions.
- The scope of this effort concentrated on towed US anti-tank weapons against German tanks. From our research, it appears that the US forces found self-propelled anti-tank weapons more effective (North Africa being an exception and, unfortunately, without a well documented example). There should be no problem in collecting data on self-propelled TDBNs. There also appears to be a few well documented examples in the Infantry records of men with bazookas against tanks .

SECTION 3

EVALUATION OF DATA AVAILABILITY AND PRIORITIZATION OF ENGAGEMENTS

3.1. GENERAL

The final step in Task 1 was to evaluate data availability and prioritize the results. In order to reduce the risk and optimize the chances of acquiring a significant number of anti-tank actions, the findings from the literature search were used to assess and prioritize the 46 engagements identified in Section 2. The results of the evaluation determined which engagements have the most potential for developing detailed combat actions.

3.2 ASSESSMENT METHODOLOGY

The evaluation was based on a five step assessment methodology designed to take subjective assessments of data and quantify them in order to rank the engagement choices. The five step assessment is described below:

- Step 1. A list of 46 engagements offering the potential for successful data collection were developed based selected criteria that:
- Thirty of the engagements came from the initial feasibility list that CMH provided
 - The engagement included American anti-tank defensive action
 - The engagement could potentially provide complete, factually accurate, and reliable quantitative historical combat data that can be used with confidence to evaluate the degradation of anti-armor weapons effectiveness in a combat situation
- Step 2. The goal of step 2 was to establish an initial bibliography and determine an order of battle (OB). If primary or reputable secondary

sources were insufficient to meet the data collection objectives (at a minimum, those considered as primary data elements shown in Table 1-2 in Section 1) or the OB could not be determined, the engagement would be eliminated from further consideration. During this step the list was reduced to 34 engagements.

Step 3. The availability of data was assessed for each unit in the OBs for each engagement. The results were scored for each engagement in each of six data categories:

- a. Data Availability
- b. Determination of Weapon Effectiveness
- c. Level of Detail
- d. Ability to Isolate the Action
- e. Ability to Justify Estimates
- f. Location of Sources

Points were assigned as follows:

- a. Data Availability -- The data collection objectives are listed in Table 3-1. Each data collection objective was assigned a point value.

TABLE 3-1. DATA COLLECTION OBJECTIVES

PRIMARY	SECONDARY	TERTIARY
Disposition of defensive weapons/location relative to attack	Artillery bombardment	Type of attack maneuver
Strength of US Infantry	Obstacles	Quality of defensive preparation
Size and activity of infantry with armor attack	Meteorological data	Extent of warning and intelligence
No. and type of AT weapon in visual contact with the enemy	Time of day	Air/Artillery support and suppression
No. of enemy tanks, armor SP guns	Terrain	Overwatching vs. maneuvering tanks
US tanks present	Maximum operational effectiveness range	Supply of on-hand ammunition
Casualties (personnel)	Rounds fired by type	
No. and type of tank, SP gun casualties (enemy)	Maps	
Narrative		

Primary objectives had a value of 3, secondary objectives had a value of 2 and tertiary objectives were given a value of 1. If the researcher felt that the data objective could be found, the corresponding value was assigned. If the data objective could not be found then the data objective was given a zero. The data objectives were grouped for ease in identifying them in the records. The maximum number of points which could be assigned for data availability was 56.

Weather:	Obstacles	2	Tactics:	Arty bombdmt	2	
	Meteorological	2		Atk maneuver	1	
	Time of Day	2		Prep def site	1	
	Light	2		Atk warning	1	
	Terrain	2		Max effect rng	2	
Composition:	US	1		Atk air, arty	1	
	German	1		Ovrwch vs	1	
				Maneuw tks		
Disposition:	Defen Weapons	3	Logistics:	Ammo supply	1	
				Rds fired by	2	
Strength:	US	3	Results:	wpn type		
	German	3		US casualties	3	
	Ger Inf w/attk	3		Enemy tks lost	3	
	US AT weapons	3		Narrative	1	
	Ger tanks	3	Resource Data:	Maps	2	
	US tanks	3				

Maximum total points = 56

b. Presence of Weapon Effectiveness Data -- Since the final objective of this project is to provide data to evaluate weapon degradation, data collected must be able to support such analyses. As part of the literature search, data were evaluated as to how discrete the weapon/target data were, i.e., individual weapon on target, individual weapon on target group, weapon group on target or some higher level of aggregation. The following scores were given:

Excellent data for individual weapon	40
Fair amount of data for individual weapon	20
Cannot determine by individual weapon	10
Cannot determine for any weapon	0

c. Level of Organizational Record -- Because of the data detail required, higher organization level records were generally too aggregated to be of great use. The kind of detail required usually was found when lower level organization records existed. The following scores were given:

Company/Platoon	40
Battalion	35
Brigade/Regiment	25
Division	10
Army/Corps	5

d. Ability to Isolate Combat Action/Engagement -- This criterion measures how satisfactorily combat actions can be isolated from other actions.

Can Isolate	40
Must Use Judgement/Estimate	20
Cannot Isolate	0

e. Ability to Justify Estimates -- This criterion is intended to measure the ability to justify any approximations or estimates made, e.g. estimation of maximum effective range (if not stated in the records).

No Estimation Needed	40
Easily Justifiable	20
Justify with Difficulty	10
Cannot Estimate	0

f. Location of Sources -- This criterion has been established to provide a relative measure of the resources - time, people, and money - needed to collect the required data for a particular research case.

Local Washington	20
Carlisle	15
Eastern Seaboard	10
Other US	5
Germany	2

Step 4. The next step was to weight the data categories depending upon importance. Data availability was the primary evaluation criteria and received half the total weight. The other criteria were used to assist in rank ordering the engagements at a lesser level. The weights used are as follows:

Data availability	0.50
Determination of Weapon Effectiveness	0.15
Level of Data/Detail	0.10
Ability to Isolate Combat Action	0.10
Ability to Justify Estimates	0.10
Location of Sources	0.05

For each engagement, the score by category achieved in step 3 was multiplied by the corresponding weight and summed to give a total weighted value for each engagement. The scores for each engagement are provided in Appendix E to this volume. Table 3-2 gives the final ordering of the engagements based on the weighted total score.

TABLE 3-2. ORDERING OF ENGAGEMENTS

NO.	ENGAGEMENT	WEIGHTED SCORE
1	Dom Butgenbach, Belgium (22)**	40
2	St. Barthelmy, France (31)	39
3	L'Abbaye Blanche, France (11)	39
4	Krinkelter Wald, Belgium (20)	38.5
5	Rocherath, Belgium (21)	38
6	Maison Rouge, France (28)	36
7	Hill 314, Mortain, France (10)	36
8	Stoumont, Belgium (24)	36
9	Kommerscheidt, Germany (16)	34.5
10	Hosingen, Germany (44)	34.5
11	Bastogne (45)	34
12	Heinerscheid, Luxembourg (46)	34
13	Baraque de Fraiture (37)	34
14	Stavelot (42)	33
15	Manhay Crossroads (36)	33
16	Schmidt, France (15)	33
17	Battle of Five Points, France (43)	31.5
18	Longchamps, Belgium (25)	29
19	Longchamps, Belgium (26)	29
20	Butzdorf and Tettingen (27)	29
21	Anzio, Italy (34)	27
22	Arnaville, France (12)	27
23	Notre Dame-de-Cenilly, France (7)	26
24	Near #7 (8)	26
25	Salerno, Italy (33)	25
26	Bolsar, Germany (29)	22
27	Le Gleize (41)	22
28	Luneville, France (14)	21
29	Dieulouard Bridgehead, France (13)	20
30	Near St. Denis-le-Gast, France (9)	19
31	Distroff, Germany (17)	18
32	Lucherberg, Germany (18)	16
33	Kirchboren, Germany (30)	16
34	El Guettar, North Africa (3)	12
35	Hotton, Belgium (23)	10.5
36	Sbeitla, Tunisia (1)	7.5
37	Sbeitla, Tunisia (2)	7.5
38	Djebel El Guessa, North Africa (4)	5
39	St. Jean-de-Daye, France (5)	5
40	St. Jean-de-Daye, France (6)	5
41	Murringen, Belgium (19)	5
42	Gela, Sicily (32)	2
43	Arnhem (35)	2
44	Clervaux (38)	2
45	Marnach (39)	2
46	Rocheftort (40)	2
**	Number in () indicates original engagement number	

Step 5. The last step in the process was to recommend which engagements to pursue. Engagements 35 to 46 were recommended for deletion. Although there were tank actions in these engagements, available records do not support the data requirements. Engagements 1 through 17 were recommended as the top engagements to pursue. Engagements 18 through 34 were considered as secondary, back-up engagements if any of the top 17 failed for any reason in the detailed data search. Engagement 34, El Guettar, was included because of a slim chance of finding some anti-tank action data in North Africa. Although the data appears sparse, this is the best of the North African engagements in terms of detailed data surviving.

There is a minimum "one action per one engagement" implied in the list of 34 engagements. In reality, there is probably a "N action per one engagement" when the detailed data search is performed. Therefore this list will provide a high probability of collecting data for 100 actions.

These recommendations were presented to the US Army Concepts Analysis Agency Review Board in December, 1989 and were accepted without change.

3.3 SUMMARY OF ENGAGEMENT EVALUATION

Because of separate data collection work being done on the WWII Ardennes Campaign, the Government decided not to pursue Dom Butgenbach, engagement ranked number 1, for detailed data collection and feasibility at this time. Therefore, St. Barthelmy, engagement number 2 and part of the Mortain battle, was selected as the engagement to pursue in detail.

Engagements ranked 35 to 46 were recommended for deletion because virtually no information exists at the level of detail required. Little detailed information was kept during the North African engagements and records for the

others in North Europe did not survive, primarily because the units were overrun and the records burned.

El Guettar, number 34, was kept on the list because it was the only North African engagement that has any potential of developing some data from. The remainder of the list should generate a minimum of 34 anti-tank combat actions.

SECTION 4

DATA COLLECTION PLANS

4.1 GENERAL

Task 2 required that SAIC prepare a series of data collection plans for the top 10 engagements. The data collection plans outline the course of action to follow when performing the detailed data search for each engagement. Data are required to be collected from all available sources. Primary or original data sources will be consulted first in all cases, and final results will be based chiefly on a careful analysis of them. Final results will make essential use of secondary or other non-primary sources only when a careful search of the primary sources fails to turn up critically needed information.

Any appropriate contingency arrangements are found in either the task assignments section or the schedules. In some cases, contingencies and backups do not exist either because none are necessary or none have been defined at this point in the research.

The data collection plans are efficient in the sense of minimizing the expected cost to obtain the necessary data. In addition, the engagements have been grouped so that data collection is more efficient. SAIC found in Phase I that the data collection could be done on all Mortain engagements at the same time within the same resources that it took to do St. Barthelmy alone. The assumption that certain engagements will be done concurrently has been built into the time and personnel estimates for certain engagements.

The time and personnel stated in each data collection plan is the estimate to do that engagement only. The sum of hours and personnel of all plans indicates the total effort required to do all ten engagements. However, the plans were developed with the assumption that some engagements would be done concurrently to utilize the efficiency of data collection.

4.2 DOM BUTGENBACH, BELGIUM

a. GENERAL DESCRIPTION OF ENGAGEMENT. This engagement took place from the 19th through the 22nd of December, 1944. The units involved were:

- o 2/26th Infantry, 1st Infantry Division
- o 5th Field Artillery Battalion
- o 33d Field Artillery Battalion (also 1st Infantry Division)
- o 634th Tank Destroyer Battalion
- o other elements from the 26th Combat Team.
- o German: 25th Panzer Grenadier Regiment, 12th SS Panzer Regiment,
12 SS Panzer Division

About three hours before dawn, 21 December 1944, German artillery began firing against the American front line, and continued until dawn. As Germans began to advance after dawn, American FOs called on "at least" ten battalions of artillery for defensive box barrages, which "succeeded in discouraging the German infantry." German armor attacked the battalion's right, "searching out the automatic weapons which had earlier helped check the infantry assault ... the BAR and machine gun crews were wiped out." German armor moved through "this gaping hole" and headed for Dom Butgenbach. A Self-Propelled Tank Destroyer (634th Tank Destroyer Battalion) "accounted for seven tanks," and Sherman tanks accounted for two more, before being knocked out. Infantry 57mm anti-tank guns also played a significant role. Three German tanks succeeded in entering the village. Two were eventually destroyed by recently arrived 90mm TDs, while the third escaped. Artillery received greatest credit for repelling the attack. Estimate is that over 10,000 rounds of artillery were fired in an 8 hour period.

References: CMH identified engagement; Cole, The Ardennes, 129 ff. (esp. 131-133; CPT D. Rivette, "The Hot Corner At Dom Butgenbach", Infantry Journal (October 1945): 19-23.

b. COMMENTS FOR RESEARCHERS. An initial attempt should be made to see if CPT D. Rivette can still be contacted. Also, try to tap into the 1st ID and 634th TDBN Associations to identify any appropriate veterans willing to be interviewed.

c. SCHEDULE FOR DATA COLLECTION.

TABLE 4-1. MILESTONE SCHEDULE FOR DATA COLLECTION ON DOM BUTGENBACH, BELGIUM

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION.	■						1	24
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, CENTER OF MILITARY HISTORY (CMH), AND THE INFANTRY SCHOOL LIBRARY, FT. BENNING, GA.	■						2	120
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. AND FRIEBURG, GERMANY TO FIND ANY RECORDS AVAILABLE OF GERMAN SIDE.		■					2	60
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■						1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.			■				1	80
6. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.			■				2	160
LEGEND: * TOTAL HOURS ■ DATA COLLECTION ■ DATA ORGANIZATION								

d. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

e. TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD, manuscripts from the Center of Military History, and monographs from the Infantry School Library in Ft. Benning, GA.

3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.
4. Prepare bibliography of sources used in research effort.
5. Add data to filing system and database.
6. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

f. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

"After Action Report," [Box 5956 26th Infantry Regiment, 1st Infantry Division 301-INF(26)-0.3 December 1944 to February 1945].

_____. "Dom Butgenbach Action, 26th Infantry (1st Division) 19-22 December 1944," Historical Manuscript File.

_____. "Attack and Penetration," 16-21 December 1944 Dom Butgenbach, Belgium, Historical Manuscript File.

G-3 Operations Report for December 1944, "Restoration and Defense of the Butgenbach-Weywertz-Weimes Sector," [Box 5763 1st Infantry Division 301-3 November to December 1944].

Monograph, "The Operations of the 2d Battalion, 26th Infantry (1st Infantry Division) at Dom Butgenbach, Belgium, 16-21 December 1944" (Ardennes Campaign - Personal Experience of an Anti-tank Company Commander) Captain Donald E. Rivette, Infantry.

Monograph, "The Operations of the 2d Battalion, 26th Infantry (1st US Infantry Division) at Dom Butgenbach, Belgium 18-21 December 1944" (Ardennes Campaign - Personal Experience of a Battalion Operations Officer) Major Thomas J. Gendron.

Rivette, Donald E., Infantry Journal, "The Hot Corner at Dom Butgenbach," Vol LVII, No. 4, October 1945, pg. 19-23.

"Unit Journal," 26th Infantry Regiment, [Box 5956 26th Infantry Regiment, 1st Infantry Division 301-INF(26)-0.3 December 1944 to February 1945].

"Summary of Butgenbach Battle," [Box 24012 1st Infantry Division Combat Interview]

SECONDARY SOURCES

Cole, Hugh, M., The Ardennes: Battle of the Bulge, pg. 128-135.

4.3. ST. BARTHELMY, FRANCE

a. GENERAL DESCRIPTION OF ENGAGEMENT. This engagement took place from the 7th through the 12th of August, 1944. The units involved were:

- o 1st BN, 117th Infantry Regiment, 30th Infantry Division
- o 823rd TDBN
- o German: 2nd Panzer Division

Shortly after midnight on the morning of August 7, tanks and infantry of the 2d Panzer Division attacked St. Barthelmy as part of the Mortain counterattack. St. Barthelmy was defended by 1st Battalion, 117th Infantry Regiment with 'B' Company, 823d Tank Destroyer Battalion in support. The initial German thrust lasted until approximately noon of August 7. Both 1st Battalion, 117th Infantry Regiment, and 'B' Company, 823d Tank Destroyer Battalion suffered heavy losses of men and equipment, however, they did succeed in damaging or destroying approximately thirty of fifty tanks and significantly delaying the 2d Panzer Division's progress.

b. COMMENTS FOR RESEARCHERS. None.

c. SCHEDULE FOR DATA COLLECTION.

TABLE 4-2. MILESTONE SCHEDULE FOR DATA COLLECTION ON ST. BARTHELMY, FRANCE

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION	■						1	24
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, USMHI IN CARLISLE, PA, AND THE INFANTRY SCHOOL IN FT. BENNING, GA	■						2	120
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. AND FRIEBURG, GERMANY TO FIND RECORDS ON GERMAN SIDE OF THE ACTION.		■					2	60
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■						1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.			■				1	80
6. CONDUCT ORAL INTERVIEWS WITH WWII VETERANS TO FILL HOLES IN DATA.				■			1	24
7. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.			■				2	160
LEGEND: * TOTAL HOURS ■ DATA COLLECTION ■ DATA ORGANIZATION								

d. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

e TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD, the US Military History Institute in Carlisle, PA, and the Infantry School Library in Ft. Benning, GA.
3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.
4. Prepare bibliography of sources used in research.
5. Add data to filing system and database.
6. Conduct oral interviews with World War II veterans to fill holes in data.
7. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

f. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

- "Combat Interviews, 30th Infantry Division, Mortain," [RG 407, National Archives, Suitland, MD].
- "G-2 and G-3 Journal and Files, 30th Infantry Division, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "G-2 and G-3 After Action Report, 30th Infantry Division, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 Journal and Files, 117th Infantry Regiment, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 After Action Report, 117th Infantry Regiment, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 Journal and Files, 118th Field Artillery Battalion, 6-10 August

1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 118th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 Journal and Files, 113th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 113th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 Journal and Files, 197th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 197th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 Journal and Files, 230th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 230th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD. Map, Mortain sheet No. 34/10 N.E. 1:25,000].

"S-2 and S-3 Journal and Files, 823d Tank Destroyer Battalion, August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 838th Tank Destroyer Battalion, August 1944," [RG 407, National Archives, Suitland, MD].

SECONDARY SOURCES

Blumenson, Martin, Breakout and Pursuit (Washington, DC: OCMH, 1961).

Committee 24, Employment of Four Tank Destroyer Battalions in the ETO. (Fort Knox, May 1950).

Hewitt, Robert L., Workhorse of the Western Front: The Story of the 30th Infantry Division (Washington: The Infantry Journal Press, 1946).

823d Tank Destroyer Battalion, A History of the 823d Tank Destroyer Battalion (1951).

4.4. ABBAYE BLANCHE, FRANCE

a. GENERAL DESCRIPTION OF ENGAGEMENT. This engagement took place from the 7th through the 12th of August, 1944. It was primarily a tank destroyer engagement reinforced by elements of the 30th Infantry Division. The units involved were:

o 1st Platoon, Antitank Company, 120th Infantry Regiment

The unit maintained a roadblock northwest of Mortain during the German counterattack. The roadblock has been credited with between forty and sixty German vehicles and tanks killed.

References: CMH identified engagement; Blumenson, Breakout and Pursuit, 469-75, 488-90; Hewitt, Workhorse of the Western Front: History of the 120th Infantry Regiment.

b. SCHEDULE FOR DATA COLLECTION.

TABLE 4-3. MILESTONE SCHEDULE FOR DATA COLLECTION ON ABBAYE BLANCHE, FRANCE

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION.	■						1	24
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, CENTER OF MILITARY HISTORY (CMH), AND THE INFANTRY SCHOOL LIBRARY, FT. BENNING, GA.	■						2	120
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. TO FIND RECORDS ON THE GERMAN SIDE OF THE ACTION.		■					2	60
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■						1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.			■				1	80
6. CONDUCT ORAL INTERVIEWS WITH WWII VETERANS TO FILL HOLES IN DATA.				■			1	24
7. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.			■				2	160
LEGEND: * TOTAL HOURS ■ DATA COLLECTION ■ DATA ORGANIZATION								

NOTE: Data for engagements 2, 3, and 7 will be collected simultaneously, therefore, the level of effort for data collection will not be as extensive.

c. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

d. TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD, manuscripts from the Center of Military History, and monographs from the Infantry School Library in Ft. Benning, GA.
3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.
4. Prepare bibliography of sources used in research effort.
5. Add data to filing system and database.
6. Conduct oral interviews with World War II veterans to fill holes in the data.
7. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

e. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

"Combat Interviews, 30th Infantry Division, Mortain", [RG 407, National Archives, Suitland, MD].

"G-2 and G-3 Journal and Files, 30th Infantry Division, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"G-2 and G-3 After Action Report, 30th Infantry Division, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 Journal and Files, 120th Infantry Regiment, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 120th Infantry Regiment, 6-10 August 1944,"

[RG 407, National Archives, Suitland, MD].

"S-2 and S-3 Journal and Files, 118th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 118th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 Journal and Files, 113th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 113th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 Journal and Files, 197th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 197th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 Journal and Files, 230th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 230th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD. Map, Mortain sheet No. 34/10 N.E. 1:25,000].

"S-2 and S-3 Journal and Files, 823d Tank Destroyer Battalion, August 1944," [RG 407, National Archives, Suitland, MD].

"S-2 and S-3 After Action Report, 838th Tank Destroyer Battalion, August 1944," [RG 407, National Archives, Suitland, MD].

SECONDARY SOURCES

Blumenson, Martin, Breakout and Pursuit (Washington, DC: OCMH, 1961).

Committee 24, Employment of Four Tank Destroyer Battalions in the ETO. (Fort Knox, May 1950).

Hewitt, Robert L., Workhorse of the Western Front: The Story of the 30th Infantry Division (Washington: The Infantry Journal Press, 1946).

823d Tank Destroyer Battalion, A History of the 823d Tank Destroyer Battalion (1951).

4.5 KRINKELTER, BELGIUM

a. GENERAL DESCRIPTION OF ENGAGEMENT. This engagement took place on the 17th of December, 1944. The units involved were:

o 3/23d infantry, 2d Infantry Division

The 3d Battalion was in line with 1/393d Infantry. German tanks and infantry attacked Company I, on the open left flank, which "went to pieces" after expending its ammunition and trying to withdraw. Company K was then attacked, but withdrew successfully, with the exception of one platoon which was destroyed. Two U.S. tanks moved forward to a crossroad near Company K position. Both were knocked out, as were two German tanks. Company L conducted an orderly withdrawal.

References: CMH identified engagement; Cole, Ardennes, 99-100.

c. SCHEDULE FOR DATA COLLECTION.

TABLE 4-4. MILESTONE SCHEDULE FOR DATA COLLECTION ON KRINKELTER, BELGIUM

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION.	■						1	24
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, AND THE CENTER OF MILITARY HISTORY (CMH)	■						2	120
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. TO FIND RECORDS ON THE GERMAN SIDE OF THE ACTION.		■					2	60
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■						1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.			■				1	80
6. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.			■				2	160
LEGEND: * TOTAL HOURS ■ DATA COLLECTION ■ DATA ORGANIZATION								

NOTE: Data for engagements 1, 4, and 5 will be collected simultaneously, therefore, the level of effort for data collection will not be as extensive.

d. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

e. TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD and manuscripts from the Center of Military History.
3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.
4. Prepare bibliography of sources used in research effort.
5. Add data to filing system and database.
6. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

f. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

"Combat Interviews," [Box 24017 File 209, Suitland, MD].

"News Items," [Box 5977 File 302-0.15, Suitland, MD].

"Regimental After Action Report," [Box 6070 File 302-INF(23)-0.3, Suitland, MD].

"Regimental Journal," [Box 6071 File 302-INF(23)-0.7, Suitland, MD].

"2d Infantry Division Journal," [Box 5989 File 302-3.2, Suitland, MD].

SECONDARY SOURCES

Cole, Hugh, M., The Ardennes: Battle of the Bulge, pg. 99-100.

4.6. ROCHERATH, BELGIUM

a. GENERAL DESCRIPTION OF ENGAGEMENT. This engagement took place on the 17th of December, 1944. The units involved were:

- o 1/9th Infantry, 2d Infantry Division (with Company K, 3/9th Infantry attached)
- o three guns from the 644th Tank Destroyer Battalion

Around 1930, three German tanks and perhaps a platoon of infantry passed through Company B before they were recognized as German. At approximately 2000, Company B engaged more of the same. Two tanks were disabled by mines, two others by bazookas. 15th Field Artillery Battalion provided support. An hour later, approximately five to six German tanks fired at the battalion for a half hour. A subsequent German infantry attack was cut down. A combined attack followed, which penetrated the battalion's position. One crippled tank was doused with gasoline and lit with thermite grenades. When the attack moved into the Company A sector, artillery "responded to the urgent call for help and within three minutes dropped in a concentration that stopped the assault."

References: CMH identified engagement; Cole, The Ardennes, 109-110.

b. SCHEDULE FOR DATA COLLECTION.

TABLE 4-5. MILESTONE SCHEDULE FOR DATA COLLECTION ON ROCHERATH, BELGIUM

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION.	■						1	24
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, AND THE CENTER OF MILITARY HISTORY (CMH)	■						2	120
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. TO FIND RECORDS ON THE GERMAN SIDE OF THE ACTION.		■					2	60
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■						1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.			■				1	80
6. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.			■				2	160
LEGEND: * TOTAL HOURS ■ DATA COLLECTION ■ DATA ORGANIZATION								

NOTE: Data for engagements 1, 4, and 5 will be collected simultaneously, therefore, the level of effort for data collection will not be as extensive.

c. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

d. TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD and manuscripts from the Center of Military History.
3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.
4. Prepare bibliography of sources used in research effort.
5. Add data to filing system and database.
6. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

e. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

"Combat Interviews," [Box 24017 File 209, Suitland, MD].

"News Items," [Box 5977 File 302-0.15, Suitland, MD].

"Regimental After Action Report," [Box 6064 File 302-INF(9)-0.3, Suitland, MD].

"Regimental Journal," [Box 6067 File 302-INF(9)-0.7, Suitland, MD].

"2d Infantry Division Journal," [Box 5989 File 302-3.2, Suitland, MD].

"644th Tank Destroyer Battalion After Action Report," [Box 23636 File TDBN-644-0.3, Suitland, MD].

SECONDARY SOURCES

Cole, Hugh, M., The Ardennes: Battle of the Bulge, pg. 99-100.

4.7. LA MAISON ROUGE, FRANCE

a. **GENERAL DESCRIPTION OF ENGAGEMENT.** This engagement took place on the 24th of January, 1945, at the Ill River, near the SE corner of the Colmar forest in France. The units involved were:

- o Company I, 3/15th Infantry, 3rd Infantry Division

Company I, 3/15th Infantry, 3rd Infantry Division, occupied a crossroad on the unoccupied side of the Ill river, beyond the bridgehead (where Company K was deployed). At 0800, the Germans attacked Company I with 13 assault guns, approximately 1 company of infantry, and a few tanks and other vehicles. The Germans overran Company I, its 3rd platoon mostly captured, and it retreated to Company K's position. The bridge had broken the previous day, thereby denying American armor support, except fire by tanks and TDs from across the river. The battle continued until mid-afternoon, when 1/15th Infantry counterattacked with armor and drove off the Germans.

References: CMH identified engagement; Clarke draft manuscript, "Riviera to the Rhine", chapter 29.

b. **COMMENTS TO RESEARCHERS.** In order to fully capture this engagement, records should be examined from the 22th of January to the 25th of January for all units that were involved. There appears to be potential for developing actions from other companies rather than I.

- c. **SCHEDULE FOR DATA COLLECTION.**

TABLE 4-6. MILESTONE SCHEDULE FOR DATA COLLECTION ON LA MAISON ROUGE, FRANCE

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION	■						1	32
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, AND THE CENTER OF MILITARY HISTORY (CMH)	■						2	200
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. TO FIND RECORDS ON THE GERMAN SIDE OF THE ACTION.		■					2	80
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■	■	■	■	■	■	1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.			■	■	■	■	1	80

continued on next page...

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
continued								
6. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.							2	200
LEGEND: * TOTAL HOURS DATA COLLECTION DATA ORGANIZATION								

d. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

e. TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD and manuscripts from the Center of Military History.
3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.
4. Prepare bibliography of sources used in research effort.
5. Add data to filing system and database.
6. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

f. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

"Report of Operations," [Box 6111 File 303-0.3, Suitland, MD].

"Operation Report HQ 3d ID," [Box 6111 File 303-0.3, Suitland, MD].

"G-3 Report," [Box 6111 File 303-0.3, Suitland, MD].

"Combat Interviews," [Box 24020 File 27, Suitland, MD].

"La Maison Rouge: The Story of an Engagement 23-24 January 1945," [Box 24020, Suitland, MD].

Sutton, William, Lt., "30th Infantry in Operation GRANDSLAM," [Box 24020, Suitland, MD].

HQ 15th Infantry Regiment, "Report of Operations," Sections I, II, III, and G-3 Report, [Box 6111 File 303-0.3, Suitland, MD].

SECONDARY SOURCES

Clarke Draft Manuscript, "Riviera to the Rhine," Chapter 29.

4.8. HILL 314, MORTAIN, FRANCE

a. GENERAL DESCRIPTION OF ENGAGEMENT. This engagement took place from the 7th through the 12th of August, 1944. The units involved were:

- o 2/120th Infantry, 30th Division
- o Company K from 3/120th Infantry

During the course of the German attack on 7 August 1944, the 2/120th, a rifle company from 3/120th Infantry, a heavy weapons company, and some anti-tank pieces were surrounded on Hill 314, where they withstood attacks from 17th SS Panzer Grenadier Division (regiment-sized) until they were relieved on 12 August 1944. The hill suffered approximately 300 casualties and received massive artillery support throughout.

b. SCHEDULE FOR DATA COLLECTION.

TABLE 4-7. MILESTONE SCHEDULE FOR DATA COLLECTION ON HILL 314, MORTAIN, FRANCE

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION.	■						1	24
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, USMHI IN CARLISLE, PA, AND THE INFANTRY SCHOOL LIBRARY IN FT. BENNING, GA.	■						2	120
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. TO FIND RECORDS ON THE GERMAN SIDE OF THE ACTION.		■					2	60
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■						1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.			■				1	80
6. CONDUCT ORAL INTERVIEWS WITH WWII VETERANS TO FILL HOLES IN DATA.				■			1	24
7. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.			■				2	160
LEGEND: * TOTAL HOURS ■ DATA COLLECTION ■ DATA ORGANIZATION								

NOTE: Data for engagements 2, 3, and 7 will be collected simultaneously, therefore, the level of effort for data collection will not be as extensive.

c. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

d. TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD, the US Military History Institute in Carlisle, PA, and the Infantry School Library in Ft. Benning, GA.
3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.
4. Prepare bibliography of sources used in research.
5. Add data to filing system and database.
6. Conduct oral interviews with World War II veterans to fill holes in data.
7. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

e. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

- "Combat Interviews, 30th Infantry Division, Mortain," [RG 407, National Archives, Suitland, MD].
- "G-2 and G-3 Journal and Files, 30th Infantry Division, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "G-2 and G-3 After Action Report, 30th Infantry Division, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 Journal and Files, 120th Infantry Regiment, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 After Action Report, 120th Infantry Regiment, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].

- "S-2 and S-3 Journal and Files, 118th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 After Action Report, 118th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 Journal and Files, 113th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 After Action Report, 113th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 Journal and Files, 197th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 After Action Report, 197th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 Journal and Files, 230th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 After Action Report, 230th Field Artillery Battalion, 6-10 August 1944," [RG 407, National Archives, Suitland, MD. Map, Mortain sheet No. 34/10 N.E. 1:25,000].
- "S-2 and S-3 Journal and Files, 823d Tank Destroyer Battalion, August 1944," [RG 407, National Archives, Suitland, MD].
- "S-2 and S-3 After Action Report, 838th Tank Destroyer Battalion, August 1944," [RG 407, National Archives, Suitland, MD].
- Kerley, Ralph, A., MAJ, "Operations of 2d Battalion, 120th Infantry Regiment at Mortain, 6-12 August 1944," [Monograph, Infantry Center Library, Ft. Benning, GA].

SECONDARY SOURCES

- Blumenson, Martin, Breakout and Pursuit (Washington, DC: OCMH, 1961).
- Committee 24, Employment of Four Tank Destroyer Battalions in the ETO. (Fort Knox, May 1950).
- Hewitt, Robert L., Workhorse of the Western Front: The Story of the 30th Infantry Division (Washington: The Infantry Journal Press, 1946).
- 823d Tank Destroyer Battalion, A History of the 823d Tank Destroyer Battalion (1951).

4.9 STOUMONT, BELGIUM

a. GENERAL DESCRIPTION OF ENGAGEMENT. This engagement took place on the 20th of December, 1944. The units involved were:

- o 1/119th Infantry, 30th Infantry Division
- o one tank company from 740th Tank Destroyer Battalion

In the early evening the Americans captured a sanatorium in the town. The Germans counterattacked just before midnight with armor and infantry, and recaptured the sanatorium, but were unable to break through due to "accurate and incessant shellfire." The Germans tried again at 210530 December but were turned back by artillery fire and tank reinforcements.

References: CMH identified engagement; Cole, The Ardennes, 349-351.

b. SCHEDULE FOR DATA COLLECTION.

TABLE 4-8. MILESTONE SCHEDULE FOR DATA COLLECTION ON STOUMONT, BELGIUM

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION.	■						1	32
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, AND THE CENTER OF MILITARY HISTORY (CMH)	■						2	180
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. TO FIND RECORDS ON THE GERMAN SIDE OF THE ACTION.		■					2	80
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■						1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.		■					1	80
6. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.			■				2	200
LEGEND: <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 15px; height: 15px; border: 1px solid black; margin-right: 5px;"></div> <div> * TOTAL HOURS ■ DATA COLLECTION ■ DATA ORGANIZATION </div> </div>								

c. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

d. TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD and manuscripts from the Center of Military History.
3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.
4. Prepare bibliography of sources used in research effort.
5. Add data to filing system and database.
6. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

e. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

"117th Infantry Regiment History 1944-45," [Box 8894 File 330-INF(117)-0, Suitland, MD].

"117th Infantry Regiment Unit Journal," [Box 8897 File 330-INF(117)-0.7, Suitland, MD].

"119th Infantry Regiment History 1944-45," [Box 8908 File 330-INF(119)-0, Suitland, MD].

"119th Infantry Regiment Unit Journal," [Box 8909 File 330-INF(119)-0.7, Suitland, MD].

"120th Infantry Regiment History," [Box 8917 File 330-INF(120)-0, Suitland, MD].

"120th Infantry Regiment After Action Report," [Box 8917 File 330-INF(120)-0.3, Suitland, MD].

"120th Infantry Regiment Unit Journal," [Box 8923 File 330-INF(120)-0.7, Suitland, MD].

"30th Infantry Division Combat Interviews," [Box 24039 File 100, Suitland, MD].

SECONDARY SOURCES

Cole, Hugh M., The Ardennes: Battle of the Bulge, pg. 349-351.

4.10 KOMMERSCHIEDT, GERMANY

a. GENERAL DESCRIPTION OF ENGAGEMENT. This engagement took place on the 4th of November, 1944. The units involved were:

- o 3/110th Infantry, 28th Infantry Division
- o other assorted elements

The US 28th Infantry Division, part of the effort by V and VII Corps to secure the Hürtgen Forest and press on towards Düren and the Rhine, was driving southeast from the towns of Vossenack and Germeter in order to gain a foothold across the Kall River. The immediate objectives were the villages of Schmidt and Kommerscheidt. These villages were seized on 3 November 1944 by the 112th Infantry Regiment. Meanwhile, the commanders of the German Army Group B, Fifth Panzer Army, and Seventh Army were meeting near Cologne to plan a counterattack in case of just such an American thrust. As a result, the Germans were swift to commit a kampfgruppe of the veteran 116th Panzer Division to aid the 89th Infantry Division in repulsing the Americans.

The 1055th Regiment of the 89th Infantry Division was recalled to the Schmidt-Kommerscheidt area to lend its strength. At dawn (about 0730) on 4 November 1944, the 1055th Regiment and the 16th Panzer Regiment, with at least 10 tanks and assault guns, began an artillery barrage on US positions in Schmidt. This was followed by a German assault 30 minutes later. The German tanks were impervious to the American bazookas fired at them. The US outposts around Schmidt fled in disarray towards Kommerscheidt and back across the Kall River. The Americans at Kommerscheidt steeled themselves for the onslaught, knowing that their tanks and heavy weapons were still on the far side of the Kall awaiting the construction of suitable bridges.

The Germans attacked in early afternoon with at least five Mark IV and Mark V tanks and 150 infantry. The tanks shelled the US positions from outside bazooka range. The defenders held and eventually knocked out one of the Panzers with bazooka fire, while a bomb from a P-47 disabled another. Three M4 Sherman tanks from the 707th Tank Battalion accounted for the other three German tanks. Deprived of armor support, the German infantry withdrew at about 1600 hours.

b. SCHEDULE FOR DATA COLLECTION.

TABLE 4-9. MILESTONE SCHEDULE FOR DATA COLLECTION ON KOMMERSCHIEDT, GERMANY

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION.	■						1	40
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, AND THE CENTER OF MILITARY HISTORY (CMH)	■						2	200
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. TO FIND RECORDS ON THE GERMAN SIDE OF THE ACTION.		■					2	80
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■						1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.			■				1	80
6. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.			■				2	160
LEGEND: * TOTAL HOURS ■ DATA COLLECTION ■ DATA ORGANIZATION								

c. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

d. TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD and manuscripts from the Center of Military History.
3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.

4. Prepare bibliography of sources used in research effort.
5. Add data to filing system and database.
6. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

e. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

- "28th Infantry Division, G-2 Periodic Report, 3-5 November 1944," [RG 328, Box 8483, Suitland, MD].
- "28th Infantry Division, G-2 Journal, 4-7 November 1944," pp. 4-7, [RG 328, Box 8487, Suitland, MD].
- "28th Infantry Division, G-2 Journal, November 1944," pp. 3-7, [RG 328, Box 8495, Suitland, MD].
- "28th Infantry Division, 112th Infantry Regiment S-2 Journals, November 1944," pp. 4-7, [RG 328, Box 8608, Suitland, MD].
- "28th Infantry Division, 112th Infantry Regiment S-2 and S-3 Journals, November 1944," pp. 4-7, [RG 328, Box 8611, Suitland, MD].
- "28th Infantry Division, 112th Infantry Regiment, Company "K" Monthly Historical Reports, November 1944," [RG 328, Box 8607, Suitland, MD].
- "28th Infantry Division, History -- 1st & 2d Battalions, 112th Infantry Regiment," [RG 328, Box 8607, Suitland, MD].
- "28th Infantry Division, Monthly & Daily Summaries -- 112 Infantry Regiment," [RG 328, Box 8607, Suitland, MD].
- "28th Infantry Division, 112th Infantry Regiment, Company "K" Diary, November 1944," pp. 27-28, [RG 328, Box 8619, Suitland, MD].

SECONDARY SOURCES

- MacDonald, Charles B., and Sidney T. Matthews, Three Battles: Arnaville, Altuzzo, and Schmidt (1952).
- MacDonald, Charles B., The Seigfried Line (1963).

4.11 HOSINGEN, GERMANY

a. **GENERAL DESCRIPTION.** Company "K", 110th Infantry Regiment, 28th Infantry Division, reinforced by Company "B", 103d Engineer Combat Battalion, garrisoned the village of Hosingen. The village was on a ridge overlooking the Our River, which was crossed by the German 26th Volksgrenadier Division (VGD) in the opening hours of the Ardennes offensive. The leading units of the German 77th Grenadier Regiment bypassed the town to the north, cutting the westward escape of Company "K". The 2d Battalion, 77th Grenadier Regiment, advanced to the southern edge of Hosingen under cover of artillery fire and began house-to-house fighting which lasted all day. As their ammunition ran low, the US defenders called for reinforcement and resupply. At 2200 hours, four M4 Shermans arrived, but they brought no rifle ammunition. Meanwhile, at dusk, the commander of the 26th VGD committed the 78th Grenadier Regiment's replacement training battalion into the Hosingen attack. Despite heavy casualties, the 78th replacement battalion forced its way into the northern part of the village. There, it was left to carry on the fight as the 77th Regiment disengaged and moved on west towards Bastogne. The German replacement battalion hammered away at Hosingen, putting the town in flames. Still the German battalion dared not approach close due to the US Sherman tanks inside the village. Early on the 18th, with their ammunition exhausted, "K" Company radioed that it was surrendering. Its stand had held up the advance of the 26th VGD for 48 hours.

b. SCHEDULE FOR DATA COLLECTION.

TABLE 4-10. MILESTONE SCHEDULE FOR DATA COLLECTION ON HOSINGEN, GERMANY

TASKS	MONTHS						EFFORT	
	1ST	2ND	3RD	4TH	5TH	6TH	PEOPLE	HRS*
1. RESEARCH BACKGROUND INFORMATION TO UNDERSTAND EVENTS OF THE ACTION	■						1	32
2. OBTAIN PERTINENT DATA FROM THE NATIONAL RECORDS CENTER IN SUITLAND, MD, AND THE CENTER OF MILITARY HISTORY (CMH)	■						2	160
3. CONTINUE RESEARCH AT THE NATIONAL ARCHIVES, WASHINGTON, D.C. TO FIND RECORDS ON THE GERMAN SIDE OF THE ACTION.		■					2	80
4. PREPARE BIBLIOGRAPHY OF SOURCES USED IN RESEARCH EFFORT.	■	■					1	80
5. ADD DATA TO FILING SYSTEM AND DATABASE.			■				1	80
6. ANALYZE COLLECTED DATA AND ORGANIZE SPECIFIC ACTIONS SUITABLE FOR DETAILED DESCRIPTION TO INCLUDE PREPARATION OF MAP-SCHEMATIC.			■				2	160
LEGEND: * TOTAL HOURS ■ DATA COLLECTION ■ DATA ORGANIZATION								

c. REQUIRED PERSONNEL.

Senior Analyst	Direct data collection, primary writer
Junior Analyst (2)	Data collection, data base and file management
Military Historian	Assist in data collection, advisory capacity in description and analysis

d. TASK ASSIGNMENTS FOR DATA COLLECTION.

1. Obtain background information on the units involved to follow the events of the action.
2. Obtain data from the National Records Center in Suitland, MD and manuscripts from the Center of Military History.
3. Continue research at the National Archives in Washington, D.C. to find information on the German units involved in the action.
4. Prepare bibliography of sources used in research effort.
5. Add data to filing system and database.
6. Analyze collected data and organize specific actions suitable for detailed description to include preparation of map-schematic.

e. PRELIMINARY BIBLIOGRAPHY.

PRIMARY SOURCES

"28th Infantry Division, Combat Interviews, German Winter Offensive, 14-16 December 1944," [Box 24233, Folder 78, Suitland, MD].

SECONDARY SOURCES

Cole, Hugh, The Ardennes Offensive, OCMH, Washington, D.C., 1965.

MacDonald, Charles B., Time for Trumpets, William Morrow & Company, Inc., New York, 1985.

MacDonald, Charles B., The Siegfried Line Campaign, OCMH, Washington, D.C., 1963.

Pallud, Jean Paul, The Battle of the Bulge: Then and Now, Battle of Britain Prints International Limited, London, 1984.

Phillips, Robert, To Save Bastogne.

Data collection plans for St. Barthelmy, Abbaye Blanche and Hill 314 were utilized for detailed data collection in this effort. The following section and Volume II of this report provide the results of the detailed data collection described in these plans.

SECTION 5

DETAILED DATA COLLECTION AND SUMMARIZATION OF MORTAIN

5.1 GENERAL

The results of the detailed data collection on Mortain can be found in Volume II of this report. This section provides an overview of the data collection tasks. Tasks 3, 4, 5 and 6 were performed repetitively for all the combat actions described in this report. These tasks were to collect, compile, organize and appraise the data for each action; identify the forces engaged in the action; summarize the data; and provide a narrative account of the action.

The engagement at St. Barthelmy, France, was selected as the engagement to pursue for assessing the feasibility developing combat actions in Phase I. As the data collection progressed, it became evident that for the same resources, data on all the engagements at Mortain could be collected at the same time. This was due primarily to the fact that the same US Army and German divisions were involved in all the engagements. Since we were already delving into those records for the August timeframe for the St. Barthelmy engagement, it was a simple job to collect everything at once which covered all the engagements at Mortain. In addition, other references identified were generally directed at the Mortain battle and encompassed all the engagements rather than looking a single one. This was an important finding because it directs grouping of other engagements for data collection to take advantage of the same circumstances.

With the resources available, SAIC was able to identify and describe 14 combat actions from the St. Barthelmy and Abbaye Blanche engagements. Hill 314 (also identified as 317 in some records) did not have any anti-tank action that could be identified from the records.

5.2

RESEARCHING THE DATA

SAIC used a combination team of senior analysts, a military historian and junior analysts to research, collect and prepare the data. Primary sources were the 30th Infantry Division records, the 823rd Tank Destroyer Battalion records and oral interviews with veterans of the 823rd Tank Destroyer Battalion. The bibliography in Appendix B and the index in Appendix C to this Volume list the sources that were examined.

Any data pertaining to Mortain was extracted and entered into a database created for this project. The database contains fields for:

- | | | | |
|---|--------------------|---|--------------|
| • | UNIT | • | DATE |
| • | TIME | • | NATIONALITY |
| • | X COORDINATE | • | Y COORDINATE |
| • | ACTION DESCRIPTION | • | SOURCE |

The database was then sorted chronologically (down to minutes, when available). This allowed for cross checking of data from different sources to determine discrepancies and to identify places where data was lacking. It also provided a relatively easy method for writing the narrative of events and tracing the action on maps.

Tables were created in order to collect the primary data objectives. Table 5-1 is an example of one such table with data that was found from the written records. As combat actions were identified, a table was created and the data filled in. The source of the data was also noted in the table. Each combat action has an associated data table.

5.3

ORAL INTERVIEWS

SAIC was able to make contact with several veterans of the 823rd Tank Destroyer Battalion through the Tank Destroyer Association. Several of them were mentioned in the After Action Reports that had been researched in the Archives. These veterans agreed to recount their experience and memories of the actions at Mortain. Transcripts of these interviews are found in Appendix B to Volume

TABLE 5-1. Example of Combat Action Data Table
ACTION 1: THE ROADBLOCK AT LE FANTAY, 7 AUGUST 1944

DATA OBJECTIVES	ATTACKER	DEFENDER	REMARKS
1. Disposition of Defense Weapons and Location Relative to Attack	---	Weapons were pointed northeast covering anticipated avenue of German approach	Folder #81
2. Strength of Defending Infantry	---	1/2 platoon (approx 35 men) of 3d Plt, B Co, 117 Inf Regt	Folder #81
3. Size and Activity of Infantry Accompanying Attack	1 company from 2. PzGren Regt, 2. PzD	---	Folder #102
4. No. and Type of Anti-tank Weapons in Visual Contact with Enemy a. 3" TD Guns (towed) b. 3" TD Guns (SP) c. 57mm AT Guns d. Bazookas	---	a. None b. None c. Two c. Two	Folder #81
5. No. of Enemy Tanks and SP Guns (including those in fire support)	2 to 4 Mk V Panther tanks	---	Folder #81
6. US Tanks Present	---	None	Folder #81
7. Infantry Casualties	?	2 KIA, 2 WIA	File 81
8. Number and Type of Vehicle Casualties and/or hits (enemy)	Unknown number of hits; no vehicle casualties reported	---	Folder #81
9. Artillery	German mortar fore accompanied tank/infantry attack	Requested fire at 2215 hours; US arty on target at 0015 hrs (after battle)	Folder #81

II of this report. The information from these interviews primarily account for the number of combat actions that we were able to identify for the Mortain battle.

In order to conduct an oral interview, our team first completed the research and data collection from all written records that could be found. The database was established and the narrative and data tables prepared from the written records. Part of this process was the establishment of maps that pinpointed the locations of troops and guns. The team used both copies of original WWII maps and our own computer generated maps that zoomed in on areas of interest. At the end of this process, not only could gaps in the data be identified but the team was well versed on the course of the engagement.

At this point, the team was prepared to interview the veteran by walking through the action and asking questions and prompting for information as needed. The information gathered from the interviews was compared with the original written records and with the data from the combat interviews conducted immediately after the engagement during WWII. In addition, verification of the data by other methods was done if possible. For example, the Naval Observatory has meteorological data on the sunrise and sunset for August 1944. These were checked to see if the recollections of times seemed accurate. If there were major discrepancies then the oral history data was not used. SAIC found, however, that there were very few discrepancies and the oral histories served to enhance and better explain the written data that had been uncovered. The oral histories conducted proved very successful on four occasions and provided a great deal of data not otherwise available.

5.4 SUMMARY OF DATA COLLECTION

The grouping of engagements by battle and common units provides an extremely efficient method of collecting data. Since records are generally kept by month for a given unit, all the data that are available can be examined and collected at once. The requesting and waiting for records is quite time consuming. For example, with Mortain, all the action occurred in August, 1944

with the same US units. Since August records were already pulled for the St. Barthelmy engagement, it was no additional effort to collect everything in August, therefore covering both the Hill 314 engagement and Abbaye Blanche engagements. Additional effort would come in sorting through the data; however, this could be delayed until later, but the data would already be available.

SAIC tried both personal interviews and telephone interviews as a test case for collecting data in Phase I as part of the feasibility study. Both were extremely successful and are highly recommended as potential sources of data for future effort. These data will most likely be unavailable in the near future and capturing it now will greatly enhance the database. We found it could be done in a cost effective manner with some preplanning.

SECTION 6 SUMMARY OF FINDINGS AND RECOMMENDATIONS

FINDINGS

- 34 engagements have been identified that have good potential for developing anti-tank combat actions.
- Engagements in North Africa have very little detailed data relevant to this project surviving. Some potential exists in the Italian campaigns. The best engagements for this project are those in Northern Europe in the last two years of the war.
- At least one combat action per engagement can be found. It is more likely that multiple combat actions per engagements can be identified.
- The US Army Infantry and Armor Division records provide much of the secondary and tertiary data required, but not as much of the primary data.
- The Tank Destroyer Battalion records are better sources of primary data.
- The Combat Interviews found in the Archives are the best source of primary recorded data.
- Oral histories proved to be extremely useful and effective and can be done in a cost effective manner.
- Careful grouping of the engagements for detailed data collection can provide efficiency in time and resources.

RECOMMENDATIONS

- Research can be continued on additional engagements (at least the top 17 identified) to collect a substantial number of combat actions to provide a significant sample.
- Oral histories greatly strengthen the data collection effort and should be pursued whenever individuals can be identified.
- In additional efforts, selectively group engagements together to increase efficiency of data collection.
- Initial efforts should concentrate on those engagements which have combat interviews present in the Archives.

- The next engagements to pursue should include:

Dom Butgenbach, Belgium
Krinkelter Wald, Belgium
Rocherath, Belgium
Maison Rouge, France
Stoumont, Belgium
Kommerscheidt, Germany
Hosingen, Germany
Bastogne
Heinerscheid, Luxembourg
Baraque de Fraiture
Stavelot
Manhay Crossroads
Schmidt, France
Battle of Five Points, France

APPENDIX A

LIST OF CONTRIBUTORS

and

STATEMENT OF CONTRACTOR'S QUALITY REVIEW BOARD

LIST OF CONTRIBUTORS

NAME	TITLE	ROLE
Victoria Young	Principal Investigator	Project Leader
Charles M. Baily	Senior Analyst/Historian	Senior Researcher and Advisor
Joyce B. Boykin	Junior Analyst	Junior Researcher and File Manager
Lloyd J. Karamales	Junior Analyst	Lead Researcher and Data Base Manager
Albert D. McJoynt	Military Historian (Consultant)	Historian Researcher and Advisor
James A. Wojcik	Senior Analyst	Senior Researcher and Military Advisor

STATEMENT OF CONTRACTOR'S QUALITY REVIEW BOARD

The following individuals formed the technical quality review board responsible for the technical quality of the final report prepared under this contract. They each personally vouch for the accuracy, completeness, objectivity, and technical acceptability of all data, methods and techniques, findings, interpretations, and conclusions presented in this final report.

Brian R. McEnany
Division Manager
Military Operations Analysis Division
Science Applications International Corporation

Bruce B. Halstead
Senior Analyst/Principal Investigator
Military Acquisitions Support Division
Science Applications International Corporation

Charles M. Baily
Senior Analyst/Military Historian
Arms Control Policy Division
Science Applications International Corporation

(Although part of the project team, Mr. Baily was purposely not a writer so that he could serve as a quality control reviewer)

APPENDIX B
GOVERNMENT STATEMENT OF WORK

**STATEMENT OF WORK FOR
ANTI-ARMOR DEFENSE DATA (A2D2) STUDY**

1. **TITLE.** Anti-Armor Defense Data (A2D2).
2. **BACKGROUND.**

a. It is widely recognized that weapon performance in combat is much lower than anticipated from firing range or field experimentation results. Over the last several years, researchers at the United Kingdom's Defence Operational Analysis Establishment (DOAE) have quantitatively compared small arms performance in actual combat with their performance in instrumented field trials. Unclassified versions of this work have appeared in Journal of the Royal United Services Institute for Defence Studies (RUSI), June 1986, pp. 33-43, and in Journal of the Operational Research Society (UK), Vol 38 (1987), No. 2, pp. 149-162. These results confirmed and extended earlier work (e.g., S.L.A. Marshall's work during WWII and Korea) that reported large differences between weapon performance in combat and estimates based on either firing range or field trial results. This is a matter of considerable interest, because the latter generally form the basis for inputs to US Army wargames and simulations. Because of the promise of DOAE's approach, an informal agreement was reached between the US Deputy Under Secretary of the Army (Operations Research) and DOAE to pursue a collaborative study to extend this analysis to anti-tank weapons. In particular, it was envisioned that a US contractor would be employed to collect data on several actions in which US forces were defending against enemy armor attacks.

b. However, it was considered necessary to make a preliminary evaluation of the feasibility and desired scope of any such contract effort. Accordingly, Director, US Army Concepts Analysis Agency (CAA) requested the US Army's Chief of Military History (CMH) to conduct a preliminary feasibility study. This feasibility study was aimed at verifying the availability of records likely to contain useful data on the performance of US anti-tank weapons, and at obtaining accurate specific information on which to base subsequent contract negotiations. It covered such points as the following:

- (1) Are US data sources on anti-tank weapons operating on the defense in past engagements adequate to support a DOAE-type analysis of combat degradation effects?
- (2) Should a contract be let to collect and document such data?
- (3) What Statement of Work (SOW) or Request for Proposals (RFP) package would be satisfactory for it?

Significant results of this feasibility study are now available, and have been used in formulating this (SOW). In particular, it develops that the most satisfactory approach would be to gather the data in four increments of approximately ten combat actions each. One of the reasons for this is that it affords periodic reassessments of the accomplishments to date before proceeding with the next increment. Such an incremental approach is particularly appropriate because it is uncertain that sufficient valid data can be found to support the envisioned analysis, since the historical record is often incomplete (especially for Platoon- and Company-level operations). The chief problem is finding actions for which there is a fairly complete record.

3. **OBJECTIVE.** The objective of this contract effort is to collect detailed historical data on at least ten combat actions in which US forces were defending against enemy armor attacks. This is perceived as the initial increment of a larger effort. We foresee the need for conducting additional studies until ultimately we have accumulated data on about one hundred such actions. These data will be combined with comparable data assembled by the UK. The total data set will then be used in a joint US/UK analysis of the degradation in anti-armor defense

effectiveness under combat conditions. The joint analysis will attempt to extend the approach developed by DOAE for small arm and machine gun degradation to the case of anti-armor weapons. Instrumented test results will also be used in this joint analysis. The resulting degradation factors will allow projections of the combat performance of future antiarmor defenses to be based upon a balanced combination of historical and instrumented field test data.

4. **SCOPE.** The contractor shall furnish the necessary personnel, materials, facilities, and other services as may be required to perform the work set forth in this SOW. The contractor shall collect, organize into systematized data files, and document detailed historical data on at least ten actions in which US forces were defending against enemy armor attack. The combat actions on which such data shall be collected shall be a subset selected from the thirty candidate actions listed at Attachment 1 to this SOW. For this purpose, the contractor shall consult at least the sources of information listed in Attachment 2 to this SOW. Probably additional sources will have to be consulted to complete the tasks called for in this SOW. The contractor shall collect all of the information available from these sources on at least the types of data listed in Attachment 3 to this SOW. Specific contributing task areas are:

- a. Data Collection Plan
- b. Data Compilation and Organization
- c. Identify Forces Involved in the Action
- d. Data Summarization
- e. Narrative Account of the Action
- f. Technical Reports

5. **TASK REQUIREMENTS.**

a. **Task Area 1 - Data Collection Plan.**

(1) The contractor shall collect data on at least ten of the actions identified in Attachment 1 to this SOW. For each such action, data shall be collected from all of the sources listed in Attachment 2. Other sources may be (and probably will need to be) consulted as well. The types of data collected on each action shall include at least those listed in Attachment 3. Primary or original data sources shall be consulted in all cases, and final results shall be based chiefly on a careful analysis of them. Final results shall make essential use of secondary or other non-primary sources only when a careful search of the primary sources has failed to turn up a few critical pieces of information.

(2) The contractor shall devise an efficient data collection plan. The data collection plan shall be efficient in the sense of minimizing the expected cost to obtain the necessary data. Thus, it should be arranged to enhance the efficiency of operations at each scheduled stop, reduce the need for "doubling-back," make the best use of the hours of operation of the data repositories visited, and so forth. The data collection plan is a deliverable item, and shall be in writing. The data collection plan shall include a schedule and itinerary for data collection. It shall describe which selected contractor personnel are to go, where they are to go, when they are to go, who they are to contact at the destination points, how long they are to stay, what data they are to collect, and their fall-back or contingency arrangements if the data anticipated at that location turn out to be unavailable, inaccessible or otherwise unusable.

b. **Task Area 2 - Data Collection, Compilation, Organization and Appraisal.** The contractor shall collect, compile, and organize the collected data into systematized data files for ready reference and analysis. There shall be one such data file for each of the actions listed

in Attachment 1 to this SOW. The contractor shall also carefully and objectively appraise the accuracy, reliability, completeness, general suitability, biases, appropriateness, and other strengths and limitations of the data for assessing the combat performance of anti-armor weapons. These systematized data files are deliverable items, and shall be presented to the COTR concurrently with the final technical report. They shall also be made available at any time during the course of this Task for inspection by the COR, COTR, and others designated by them. Since they are of interest to other investigations beyond the scope of this SOW, the contractor shall (so long as they are in his possession) take adequate measures to safeguard and preserve them intact for future reference. They shall include at least the items specified for inclusion by this SOW.

(1) Pertinent extracts (preferably facsimilies or duplicates) of the original source data, or accurate copies of it, shall be compiled, indexed, cross-referenced, and organized into systematized data files for efficient ready reference and subsequent analysis. All items of information collected in the course of this work shall be preserved and made a permanent part of the systematized data files. Each item of information shall be marked in such a way as to unambiguously and completely describe what information it represents, its bibliographic description, when it was obtained, and by whom (e.g., Anti-Tank Weapons on Hand in the Second Mechanized Infantry Battalion, 30th Infantry Division Personnel Strength at 2400 hours on 1 October 1944; copied from "30th Division Special G-3 Report" dated 08 Oct 44; located in Military Archives of the Slobbovian Kingdom, Capitol Seat, Lower Slobbovia, room number 101, shelf number 26, file number 78, microfilm roll number 1175542, page numbers 17-54; obtained by Jane Doe, 14 Mar 1999; filed 20 Mar 1999 by John Doe). This information shall be entirely adequate for any future investigator to go directly to the exact data source and compare it to the information reported by the contractor's investigator. The systematized data files are deliverable items.

(2) In addition, the selected contractor shall carefully and objectively appraise the accuracy, reliability, completeness, suitability, biases, appropriateness, and other strengths and limitations of the data for assessing the combat performance degradation of anti-armor weapons. There shall be at least one such appraisal for each of the actions listed in Attachment 1 to this SOW. These appraisals shall include an objective consideration and resolution of conflicting information from different sources, and alternative interpretations of the available data considering all available sources. They shall highlight areas in which the data are incomplete, suspect, not completely trustworthy, or otherwise possibly limited for use in assessing combat degradation of anti-armor weapons. These appraisals are deliverable items. They shall be in writing, dated and signed by their preparers, and filed in their corresponding systematized data file. Where limitations are discovered that make the data ill-suited for assessing antiarmor combat effectiveness, the contractor shall attempt to rectify them by collecting additional data. If the limitations cannot be satisfactorily rectified the appraisal shall so state.

(3) On occasion, estimates or judgments may have to be made. However, judgments or estimates may be used only when a conscientious search of primary and secondary sources has failed to determine the issue. Each such judgment or estimate is a deliverable item. It shall be in writing, dated and signed by its preparer, and filed in the corresponding systematized data file. It shall include: (i) an explanation of what is being estimated, (ii) a description of why and how it was estimated (i.e., the reasons and rationale for the estimate arrived at), (iii) the supporting evidence for the estimate arrived at, (iv) the estimate arrived at, (v) the date and name of the person making the estimate.

(4) Each systematized data file, including the data extracts, written appraisal of strengths and weaknesses, written estimates or judgments, and other items indicated in this SOW, is a deliverable item. All systematized data files shall be delivered to the COTR at the

same time as the Final Technical Report. They may be inspected by the COR, COTR, or others designated by them, at any time during the life of this Task.

c. **Task Area 3 - Identification of the Forces Engaged in the Action.** The contractor shall identify exactly the forces engaged on each side in the action. This shall include a description of the (conceptual) spatial, temporal, and organizational boundaries of the (real world) action. These engaged force identifications are deliverable items. They shall be in writing, dated and signed by their preparers, and filed in the corresponding systematized data files. They shall include the initial and final Orders of Battle (O/B) for each of the engaged sides, and all major changes in the O/B of engaged forces during the battle, together with the time at which they occurred. The O/B shall be detailed down to the smallest organizational element identified in the records consulted. The organization for combat (e.g., the creation of task forces and other ad hoc battle groupings formed or reformed either before or during the battle) shall be described in detail. Supporting artillery fires and air support shall be identified by time, target(s) against which delivered, volume, type of munition employed, and areal density of fire to the extent that such information is available in the sources consulted. These force identifications are deliverable items. They shall be in writing, dated and signed by their preparers, and filed in the appropriate systematized data file.

d. **Task Area 4 - Summarize the Data.** The contractor shall prepare a detailed written, tabular, and computerized database summary of each action. This summary shall include at least all the data items listed on the reporting forms provided in Attachment 3 to this SOW. It is important that a common form be used to report the data on each action. Accordingly, the contractor shall design or otherwise prepare a standardized database format, obtain the approval of the COR and COTR, and then use it as the basis for a computerized database that shall summarize the systematized data files in a form convenient for use in assessing combat degradation factors for anti-armor weapons. These data summaries and databases are deliverable items. The written or tabular summaries shall be dated and signed by their preparers, and filed in the appropriate systematized data file. A review version of the computerized data base shall be provided to the COTR concurrently with the draft technical report.

e. **Task Area 5 - Narrative Account of the Action.** The contractor shall prepare a narrative account of each action. It shall include a detailed chronology of events, and maps showing the disposition and displacement of forces during the course of the battle. These narratives are deliverable items. They shall be in writing, dated and signed by their preparers, and filed in the appropriate systematized data file.

f. **Task Area 6 - Technical Reports.** Contractor shall prepare a Draft Technical Report and a Final Technical Report, as indicated in paragraph 6 below.

6. END RESULTS/DELIVERABLES.

a. **Reports and Other Deliverables.** The contractor shall submit the following reports and other deliverables in accordance with the delivery schedule set forth in paragraph 7, and in accordance with the terms set forth in paragraphs 6b and 6c and elsewhere in this SOW.

(1) **Written Monthly Progress Reports.** Each report shall summarize activities and achievements for the preceding period including organizations and personnel contacted and results, status of major tasks including milestones achieved/missed, and any problems encountered or anticipated in meeting contract objectives. It shall list the cumulative effort in manhours and dollars expended and remaining on each task as of the end of the reporting period. It shall outline contractor's plans, objectives and milestones for the next month.

(2) **Oral Progress Briefings.** Formal progress briefings shall, in accord with the

schedule in paragraph 7, be presented to and discussed with the COR, COTR and other interested parties at such locations in the DC area as may be designated by the COTR (but anticipated to be either at CAA, the US Army Center of Military History, the contractor's facilities, or the Pentagon). Each such progress briefing shall be accompanied by a set of annotated Vu-Graph charts providing a permanent record of the presentation. The last of these oral progress briefings shall be a formal briefing describing the findings and accomplishments of the work, the potential for further research (if any), and salient lessons learned from the experience. It shall be presented to and discussed with the COR, COTR and other interested parties at CAA.

(3) **Systematized Data Files and Computerized Database.** The systematized data files and the computerized database shall be submitted concurrently with the Final Technical Report. The systematized data files shall also be made available at any time during the course of the work for inspection by the COR, the COTR, or other persons designated by them. In addition, the computerized database shall be on 5.25-inch double-sided 360K floppy disks fully compatible with and usable by microcomputer database systems available at CAA (e.g., dBASE-III Plus or LOTUS 1-2-3 running on IBM AT or Zenith Z-248 model personal computers).

(4) **Draft Technical Report.** This report shall present a complete and clear exposition of the technical findings and accomplishments of the research, including the specific methods used and any other narrative, technical or tabular information necessary to understand the report.

(5) **Final Technical Report.** A final version of the Draft Technical Report; revised and amended as appropriate, shall be submitted. It shall be accompanied by a set of floppy disks fully compatible with CAA's publications word processing system (which uses 8-inch dual-density floppy disks with the Xerox 3010 Star word processing system).

b. **Report Headings.** The heading of all reports shall contain the following information:

Date of report	Title of report
Contract number	Name of contractor
Contract expiration date	Contractor's Project Director and phone number
Total dollar value	Full title of contract work
Government Sponsor	

c. **Publications Format Required.** The Draft Technical Report and the Final Technical Report provided under this contract shall follow the format specified for CAA Study Reports in the CAA Publications Guide, except that (i) Appendix A shall contain the contractor's quality review board statement specified in paragraph 9 of this SOW in addition to "Study Contributors," (ii) Appendix B shall contain a copy of the Statement of Work in lieu of "Study Directive," and (iii) the cover sheet shall also contain the heading information described in paragraph 6b above. The contractor will be provided a current copy of the CAA Publications Guide for use in preparing the Draft Technical Report and Final Technical Report. An outline of the major features of that format is provided below for reference during proposal preparation:

(1) **Report Cover** (Report Title, number, preparing agency, date, report heading information)

(2) **Disclaimer** - The Draft Final Report and the Final Report resulting from this study shall contain the following disclaimer statement inside their front cover:

"The views, opinions, and findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so

indicated by other official documentation. Comments or suggestions should be addressed to:

Director
US Army Concepts Analysis Agency
8120 Woodmont Avenue
Bethesda, Maryland 20814-2797"

(3) Report Documentation Page (Use of Report Documentation Page, DD Form 1473, at this point of the Draft Final Report and the Final Report is mandatory)

(4) Title page

(5) Study Summary

(6) Table of Contents (including Tables, Figures, and Appendices)

(7) Acknowledgments (optional)

(8) Preface (optional)

(9) Chapter 1 - Executive Summary

(10) Chapters 2-(NEXT-TO-LAST) - (as required to cover the subject)

(11) Chapter (LAST) - Summary of Findings and Observations

(12) Appendix A - List of contributors, and Statement of Contractor's Quality Review Board

(13) Appendix B - Statement of Work

(14) Appendix C - References and sources of information consulted

(15) Appendix D to LAST (technical appendices as required)

(16) Glossary (Include acronyms, abbreviations, short terms, terms unique to this report, symbols, definitions, etc.)

7. SCHEDULE.

a. All technical data items, reports, and other deliverables shall be delivered to the COR and to the COTR. Suggested COTR is Mr. Howard Whitley, CSCA-SAMV, US Army Concepts Analysis Agency, 8120 Woodmont Avenue, Bethesda, MD 20814-2797, phone (301) 295-5228. COR is Mr. Eugene Visco, SFUS-SPM, Room 3C559, The Pentagon, Washington, DC 20310, phone (202) 697-0026.

b. Delivery of all reports and other deliverables shall be made to the COTR in accordance with the following schedule, in which all days are calendar days, and ATA means "After Task Award."

Item No.	Description	Date (on or before)
0001	Conference of Contractor with COTR and other interested parties to review and coordinate study plans	10 days ATA
0002A	Oral Progress Briefing No. 1 and Annotated Briefing Charts (15 copies + Vu-Graphs)	30 days ATA
0002B	Oral Progress Briefing No. 2 and Annotated Briefing Charts (15 copies + Vu-Graphs), including any revisions to previously-submitted materials.	60 days ATA

0002C	Oral Progress Briefing No. 3 and Annotated Briefing Charts (15 copies + Vu-Graphs), including any revisions to previously-submitted materials.	90 days ATA
0002D	Oral Progress Briefing No. 4 and Annotated Briefing Charts (15 copies + Vu-Graphs), including any revisions to previously-submitted materials.	120 days ATA
0002E	Oral Progress Briefing No. 5 (Final) and Annotated Briefing Charts (15 copies + Vu-Graphs), including any revisions to including any revisions to previously-submitted materials.	150 days ATA
0003A	Draft Technical Report (5 Copies; format as prescribed in para 6)	120 days ATA
0003B	Computerized Database (Draft or Review Version)	130 days ATA
0004	Government review or approval of the Draft Technical Report and Draft Computerized Database	140 days ATA
0005A	Final Technical Report (8 copies plus master for printing, in the format prescribed in para 6)	150 days ATA
0005B	The text of the Final Technical Report shall also be provided on one set of 8-inch dual-density floppy disks fully compatible with the Xerox 8010 Star word processing system.	150 days ATA
0005C	Systematized Data Files (one set)	150 days ATA
0005D	Computerized Database (Final Version)	150 days ATA
0006	Government review of Final Technical Report and associated deliverables	150 days ATA
0007	Written Monthly Progress Reports, the first to be provided on the tenth day of the first full month after contract award, and the remainder to be provided not later than the calendar fifth day of each succeeding month until the task ends.	

8. **INSPECTION AND ACCEPTANCE.** Inspection and acceptance of all work performed and all reports or other Technical Data delivered under this contract shall be performed at destination (the US Army Concepts Analysis Agency) by the Contracting Officer's Technical Representative (COTR) and the Contracting Officer's Representative (COR).

a. **Progress Review and Coordination Meetings.** Liaison and direct communication between the contractor and the COTR will be maintained by progress review and coordination meetings. These meetings will be held at such times and places as considered advisable by the COTR, but it is anticipated that they will normally be held either at CAA, at the US Army Center of Military History, at the contractor's facilities, or at the Pentagon. These meetings will provide an opportunity for the COR, COTR, and other interested parties to receive the Oral Progress Briefings and accompanying annotated briefing deliverables listed in paragraphs 6 and 7, to review progress, to determine how much effort and funds have been expended, to discuss the next steps, and to raise any problems or other issues requiring coordination with the COR or COTR. At the conclusion of each of these meetings, the contractor is responsible for preparing a brief memorandum for record summarizing the main points discussed and any decisions reached, and for presenting it to the COTR for approval. Once approved by the COTR, these memoranda become a part of the permanent record of decisions taken during the course of the contract.

b. **Review/Approval of Annotated Briefing Chart Materials.** Government review and approval of the annotated briefing deliverables listed in paragraphs 6 and 7 will be conducted on an informal basis during the progress review and coordination meetings.

c. **Inspection and Review/Approval of the systematized data files** will be conducted from time to time as the work progresses. The COR, COTR, personnel from US Army Center



DEPARTMENT OF THE ARMY
THE CHIEF OF MILITARY HISTORY AND THE CENTER OF
MILITARY HISTORY
WASHINGTON, DC 20314-0200



REPLY TO
ATTENTION OF

DAMH-RAS (870-5e)

28 February 1989

MEMORANDUM THRU

Dr. Drea, Chief, Staff Support Branch, U.S. Army Center of
Military History

LTC Bounds, Chief, Research and Analysis Division, U.S. Army
Center of Military History

FOR Dr. Robert Helmbold, U.S. Army Concepts Analysis Agency (CSCA-
MVM), 8120 Woodmont Avenue, Bethesda, Maryland 20814-2797

SUBJECT: 30 Anti-Tank Engagements for CAA

1. In accordance with verbal agreements between U.S. Army Center of Military History (CMH) and the U.S. Army Concepts Analysis Agency (CAA), the following 30 anti-tank engagements are submitted as candidates for extensive contract research to elicit information pertaining to the combat degradation of anti-tank weapons in combat during World War II.

2. The engagements are at Enclosure A. For the sake of simplicity, in many cases, I often have quoted from the Green Books to describe the action. Major sources of information used to derive an action are included in each engagement precis. The full citations of these battle-specific sources, along with other common sources, are listed at Enclosure B. Records at the National Archives are not listed.

3. A few comments on specific actions:

a. Action #30 is not really a US defensive action. Given the number of tanks cited in MacDonald, The Last Offensive, however, in addition to the "pad factor," I thought it worth including. If "sixty tanks" is not an error in the U.S. Army's official history, the engagement could prove interesting.

b. Action #8 is not mentioned in the appropriate Green Book. Nevertheless, I have listed the action on the list because it was mentioned both in a fairly detailed After Action Report, which I examined at Fort Knox, and a unit history.


4. Several of the engagements are divisible into one or more separate actions, as described by Mr. Rowland of the UK's DOAE in his treatment of Tobruk. In one sense, therefore, there are well over thirty engagements here--a point of which the contractor should be made aware so that research can be conducted accordingly.

DAMH-RAS (870-5e)

SUBJECT: 30 Anti-Tank Engagements for CAA

5. Despite the occasional citation from a source such as a unit history, the contractor still will need to canvass secondary source material to determine what is available.

2 Encls



Stephen J. Loggren

DAC

Historian, Staff Support Branch

30 World War II Anti-Tank Engagements

Compiled by
Stephen J. Lofgren
Staff Support Branch
U.S. Army Center of Military History

28 February 1989

Action 1

a. DATE: "shortly after noon," 17 February 1943
b. LOCATION: Sbeitla, Tunisia
c. UNIT(S) INVOLVED: 601st Tank Destroyer Battalion (Combat Command B, 1st Armored Division)
German: Elements of Group Stenkhoff, 21st Panzer Division

d. DESCRIPTION: 601st TD Battalion was screening the northern flank of CCB, 1st Armored Division, when it was attacked by three groups of German tanks. It was forced to retreat toward Sbeitla.

e. ADDITIONAL COMMENTS: Fought for at least 1/2 hour, but there is no report of knocking out any German armor.

f. MAJOR SOURCE(S) CONSULTED: Howe, Northwest Africa; Howe, Battle History.

Action 2

a. DATE: 17 February 1943, during the latter stages of action 1.

b. LOCATION: Sbeitla, Tunisia

c. UNIT(S) INVOLVED: 2/13th Armored Regiment, and 27th AFA Battalion (CCB, 1st Armored Division)

German: Elements of Group Stenkhoﬀ, 21st Panzer Division

d. DESCRIPTION: The battalion's tanks "had been placed hull down in a wadi from which they could oppose heavier German armor trying to break through. A frontal attack against their position about 1315 by Stenkhoﬀ's much superior tank group gave them the opportunity for which they had hoped. Waiting until the range was very close, they fired a volley which instantly knocked out four or more tanks and completely disrupted the enemy formation. Stenkhoﬀ's force ... pulled back under fire from the 27th Armored Field Artillery Battalion."

e. ADDITIONAL COMMENTS: 2/13 Armored lost ten tanks.

f. MAJOR SOURCE(S) CONSULTED: Howe, Northwest Africa (quoted above); Howe, Battle History.

Action 3

a. DATE: 23 March 1943
b. LOCATION: El Guettar
c. UNIT(S) INVOLVED: 601st TD Battalion; 899th TD Battalion; various battalions of 16th and 18th Infantry, 1st Division.

d. DESCRIPTION: Near dawn the 3/16th Infantry and the 3/18th Infantry encountered the 10th Panzer Division, which was reconnoitering by fire along the northern side of the valley along southern slopes of Djebel el Mcheltat. The 601st TD Battalion was engaged with a "spearhead" until 0700. German attack split into three. One group overran the 32d Field Artillery Battalion and part of the 5th Field Artillery Battalion. The battle centered around Hill 336. "German tank-infantry teams overran the American artillery and infantry positions east of Hill 336 in engagements which brought some hand-to-hand encounters, and heavy American losses." When the German attack reached a mine belt, however, it faltered. Losing 8 tanks to the minefield, and "nearly thirty" to TD fire, the German attack faltered. Pulling back a few miles, the German regrouped for a second attack later in the day, which also failed.

e. ADDITIONAL COMMENTS: 33 TD guns were lost. This action at El Guettar involved over 100 German tanks, and, quoting from Charles Baily's Faint Praise, displayed "almost a classic example of proper tank destroyer employment" (p. 57, re 601st TD Battalion).

f. MAJOR SOURCE(S) CONSULTED: Howe, Northwest Africa, 560-62 (quoted above); Baily, Faint Praise, 56-57; Carter, "Operations of the 1st Battalion, 18th Infantry."

Action 4

- a. DATE: 6 December 1943
- b. LOCATION: Djebel el Guessa
- c. UNIT(S) INVOLVED: Battery C, 27th AFA Battalion (also Company C, 1/6th Armored Infantry)

d. DESCRIPTION: In southern flank along the crests of Djebel el Guessa, elements of 7th Panzer Regiment attacked, with approximately 20 tanks. Company C became "completely disorganized." Battery C, supporting Company C, received the brunt of the armored attack. To quote, Howe, Northwest Africa, Battery C "was forced back into a natural cul-de-sac, and although aided by Battery B, in the end its five old-style half-tracks were destroyed and its survivors captured. But it had won considerable time and claimed to have knocked out at least eight Mark IV German tanks with its 105-mm. howitzers."

- e. ADDITIONAL COMMENTS:
- f. MAJOR SOURCE(S) CONSULTED: Howe, Northwest Africa, 328 (quoted above).

Action 5

a. DATE: 9 July 1944
b. LOCATION: St. Jean-de-Daye
c. UNIT(S) INVOLVED: Company C (esp 1st Platoon), 823d TD Battalion, attached to 30th Infantry Division versus unidentified Tank Company from 743d Tank Battalion, CCB, attached to 30th Infantry Division.

d. DESCRIPTION: The tank company (8 Shermans) made a wrong turn at road intersection, and, while reconnoitering by fire, drove into Company C's position. Company C had heard tracked vehicle noises earlier, inquired via radio regarding American forces in the area, and had been informed that there were no American tanks nearby. After the tanks approached within 600 yards, an engagement ensued. Two tanks were knocked out, at least one TD gun was damaged, and one uncamouflaged half-track was shot from a range of approximately fifteen yards.

e. ADDITIONAL COMMENTS: Visibility was hampered by drizzle and fog. The remaining six tanks managed to reach their objective just in time to be strafed by American planes.

f. MAJOR SOURCE(S) CONSULTED: Blumenson, Breakout and Pursuit, 114-15; Shrader, Amicide, 80-84.

Action 6

a. DATE: 11 July 1944
b. LOCATION:
c. UNIT(S) INVOLVED: 823d Tank Destroyer Battalion; 39th and 47th Infantry Regiments (9th Infantry Division)

d. DESCRIPTION: Co. A, 823d TD Battalion supporting 39th Infantry, and Co. C supporting 47th Infantry. Beginning about 0200 Germans attacked and made gains during the dark hours. After daybreak, the TDs were able to maneuver and drive off the German armor, leaving the infantry undefended. Attack was finally repulsed by 1600 after fighting all day. 47th Infantry suffered 124 casualties, and its 3d Battalion had its C.P. overrun and medical detachment captured.

e. ADDITIONAL COMMENTS: I did not find this incident in the Green Books.

f. MAJOR SOURCE(S) CONSULTED: After Action Report, 823d Tank Destroyer Battalion (photocopy, Armor School Library, Ft. Gillespie, History of the 47th Infantry).

Action 7

- a. DATE: 29 July 1944, "shortly before dawn"
- b. LOCATION: crossroads three miles southwest of Notre Dame-de-Cenilly
- c. UNIT(S) INVOLVED: 1 company armored infantry, 1 tank company of 41st Armored Infantry, Combat Command B 2d Armored Division;

German: Elements of 2d SS Panzer Division, 17th SS Engineer Battalion, 6th Parachute Regiment, and 17th SS Panzer Grenadier Division.

d. DESCRIPTION: "Shortly before dawn, 29 July, about thirty enemy tanks and vehicles, led by an 88-mm. self-propelled gun, approached a crossroads about three miles southwest of Notre Dame-de-Cenilly, where a company of armored infantry and a company of tanks were deployed. German infantrymen crawled along the ditches on both sides of the road as half a dozen enemy tanks and armored vehicles assaulted frontally to force open an escape route. The self-propelled gun in the lead overran the American defensive line and was about to make a breakthrough when rifle shots killed the driver and gunner. With the gun carriage blocking the road, individual American and German soldiers battled for the crossroads until daybreak, when the Germans withdrew, leaving 17 dead and 150 wounded. The motor of the undamaged self-propelled gun carriage was still running, the gun still loaded. The Americans sustained less than 50 casualties and lost a tank and a half-track."

e. ADDITIONAL COMMENTS: a SSG in 41st Armored Infantry received a DSC.

f. MAJOR SOURCE(S) CONSULTED: Blumenson, Breakout and Pursuit (quoted above, 277).

Action 8

a. DATE: 29 July 1944
b. LOCATION: "not far away" from Action 7
c. UNIT(S) INVOLVED: 1 company from a 4th Division infantry battalion attached to 2d Armored Division, 78th AFA Battalion, elements of 702d TD Battalion.

d. DESCRIPTION: "[F]ifteen German tanks and several hundred troops overran an outpost manned by a company of the recently arrived battalion of the 4th Division. The American company commander was killed at once and the infantrymen fell back half a mile into the positions of the 78th Armored Field Artillery Battalion. Two artillery batteries in direct fire, a third in indirect fire, and four guns of the 702d Tank Destroyer Battalion, held off the Germans for thirty minutes until nearby armored infantrymen arrived to re-establish the outpost line. They found seven destroyed Mark IV tanks and counted more than 125 enemy dead."

e. ADDITIONAL COMMENTS:
f. MAJOR SOURCE(S) CONSULTED: Blumenson, Breakout and Pursuit (quoted above, 277).

Action 9

- a. DATE: "shortly before midnight, 29 July 1944"
- b. LOCATION: near St. Denis-le-Gast (German axis from Roncey pocket in the north toward St. Denis-le-Gast)
- c. UNIT(S) INVOLVED: Elements of same units as in Actions 7, 8.

d. DESCRIPTION: German force was approximately 1,000 men and 100 armored vehicles. Broke the American line at one point, and the Americans fell back from St. Denis-le-Gast, regrouped, and continued fighting. Primary aim of Germans, however, was to escape. By morning the town was firmly under U.S. control. German losses were 130 KIA, 124 WIA, 500+ POW, and "at least 25 vehicles, of which 7 were tanks," destroyed.

e. ADDITIONAL COMMENTS: A LTC of 41st Armored Infantry, and a SSG of 2d Armored Division Reserve headquarters received DSCs (the LTC posthumously).

f. MAJOR SOURCE(S) CONSULTED: Blumenson, Breakout and Pursuit, 279.

Action 10

- a. DATE: 7-12 August 1944
- b. LOCATION: Hill 317, Mortain
- c. UNIT(S) INVOLVED: 2/120th Infantry, 30th Division;
Company K from 3/120th Infantry
- d. DESCRIPTION: During the course of the German attack on 7 August 1944, the 2/120th (-), a rifle company from 3/120th Infantry, a Heavy Weapons company, and some anti-tank pieces were surrounded on Hill 317, where they withstood attacks from 17th SS Panzer Grenadier Division (regiment-sized) until they were relieved on 12 August 1944.
- e. ADDITIONAL COMMENTS: The units suffered approx 300 casualties. Five DSC's were awarded. The 2/120th Infantry and Company K received DUCs (the GO's mention the Germans launching "another bitter attack with a large force of tanks"). The hill received massive artillery support throughout.
- f. MAJOR SOURCE(S) CONSULTED: Blumenson, Breakout and Pursuit, 469-75, 488-90; Hewitt, Workhorse of the Western Front; History of the 120th Infantry Regiment (Washington, DC: Infantry Journal Press, 1947); War Department General Orders 3, 8 January 1945. Records of the 120th Infantry and the 30th Infantry division, National Archives.

Action 11

a. DATE: 7-12 August 1944
b. LOCATION: Abbaye Blanche
c. UNIT(S) INVOLVED: 1st Platoon, Antitank Company, 120th Infantry

d. DESCRIPTION: Maintained a roadblock NW of Mortain during the German counterattack. In Breakout and Pursuit, Martin Blumenson credits the roadblock with over 40 German vehicles and tanks killed. WDGO 3, 8 January 1945 (which awarded the unit a DUC) credits the unit with more than 60 killed.

e. ADDITIONAL COMMENTS: The unit history of the 120th infantry says it was the 2d Platoon. Since men filtered to the roadblock, the exact composition is not clearly documented.

f. MAJOR SOURCE(S) CONSULTED: Same as Action 10. Employment of Four Tank Destroyer Battalions in the ETO, Armor School Study, No. 24.

Action 12

- a. DATE: 10 September 1944
- b. LOCATION: Crossing the Moeselle river, Arnaville, France
- c. UNIT(S) INVOLVED: Company C, 1/10th Infantry, 5th Infantry Division
- d. DESCRIPTION: The battalion was preparing a defensive position on a hill. Company C received suppressive fire from 3 German tanks (soon 5), apparently unsupported by infantry, which then attacked toward the company. Company fired bazookas to no effect, and was forced to retreat. The unit suffered many casualties, many caused by tree bursts from tank rounds. Company commander killed. Mortar and artillery fire called in, but attack not stopped until P-47s (from XIX TAC) attacked the tanks.
- e. ADDITIONAL COMMENTS: Company B had similar experience. Company A not really engaged.
- f. MAJOR SOURCE(S) CONSULTED: MacDonald and Mathews, Three Battles, 51-52.

Action 13

- a. DATE: 13 September 1944; from 0100 to around daybreak
- b. LOCATION: Dieulouard Bridgehead, France--north of Nancy along the Moselle river
- c. UNIT(S) INVOLVED: Elements of 317th and 318th Infantry Regiments; 702d Tank Battalion (attached); 313 Field Artillery Battalion (80th Infantry Division) .

German: Elements of 3d Panzer Grenadier Division.

- d. DESCRIPTION: The fighting is divisible into three actions.

1. At 0100 one battalion of 29th Panzer Grenadier Regiment, reinforced by approximately 10 assault guns, struck a roadblock north of Loisy, and then struck Co. F, 318th Infantry, which fought until it received orders to fall back to the south.

2. Main axis of the German armor-infantry attack was from Foret de Facq toward the north flank of American bridgehead across the Moselle. "This force (later estimated at two battalions and fifteen tanks) took the village of Ste. Genevieve ... captured Bezaumont ..." and, in conjunction with the Loisy assault force, attacked toward the bridge sites. The 318th Infantry's C.P. was apparently overrun.

3. "About 0500 a thin line of infantry firing from the ditches along the road between Loisy and the crossroad west of Bezaumont momentarily checked the enemy; but this position was quickly overrun by German tanks that left the ditches full of dead and wounded. However, the fight along the roadside had given time for Lt. Col. J.C. Golden, commanding officer of the 2d Battalion, 318th Infantry, to gather enough men and tanks at le Pont de Mons to meet the final German assault. While the infantry fought from the houses, B Company, 702 Tank Battalion, knocked out the leading enemy tanks and assault guns at ranges as close as two hundred yards." Ultimately, the attack was spent, and at daylight the Germans withdrew to the north, shelled by the 313th FA Battalion, "the only American artillery in the bridgehead."

- e. ADDITIONAL COMMENTS: Cannon Company, 317th Infantry, "was outflanked and very nearly cut off; but the gunners remained at their pieces and did much to check the German attack. For this and later actions in the bridgehead battle the Cannon Company received a Distinguished Unit Citation."

- f. MAJOR SOURCE(S) CONSULTED: Cole, The Lorraine Campaign, 80-82 (quoted above).

Action 14

a. DATE: 18 September 1944
b. LOCATION: Luneville and vicinity, France
c. UNIT(S) INVOLVED: 42d Cavalry Squadron, 2d Cavalry Group, XII Corps

d. DESCRIPTION: "About 0700 ... the advance guard of the 111th Panzer Brigade hit the 42d Cavalry outposts manned by A Troop. The six 75-mm. assault guns from E Troop were rushed forward to meet the Panthers, but the American shells bounced off the heavy frontal armor of the German tanks and three of the guns were destroyed in as many minutes.... Dismounted action by small groups of cavalymen was more effective against the German infantry following the tanks and held the enemy advance guard in check until about 1100." The Squadron's XO organized the defense, "and, as the enemy circled in a tightening noose, finally led the 42d through the narrow gap remaining to the north and reached Luneville."

e. ADDITIONAL COMMENTS: The Germans made a concerted attempt to take Luneville later during the day (using armor), but were defeated. The Cavalry Group commander received the DSC.

f. MAJOR SOURCE(S) CONSULTED: Cole, The Lorraine Campaign (quoted above, p. 221).

Action 15

- a. DATE: 4 November 1944
- b. LOCATION: Hasenfeld and Harscheidt Roads near Schmidt, Germany
- c. UNIT(S) INVOLVED: Companies L and K, 3/112th Infantry, 28th Infantry Division
- d. DESCRIPTION: After dawn, the Germans began to attack the Americans defending Schmidt. After observed infantry infiltration, German forces consisting of approximately five tanks and one infantry battalion attacked down both roads. Bazooka fire seemingly had no effect. The American units were effectively routed by the German armor, and by 1230 Schmidt had been recaptured by the Germans.
- e. ADDITIONAL COMMENTS: This account is based largely on WWII combat interviews.
- f. MAJOR SOURCE(S) CONSULTED: MacDonald and Mathews, Three Battles.

Action 16

- a. DATE: 4 November 1944
- b. LOCATION: Kommerscheidt, Germany
- c. UNIT(S) INVOLVED: 3/110th Infantry, 28th Infantry Division, and other assorted elements
- d. DESCRIPTION: At least five German tanks, with supporting infantry attacked. After a nasty battle, they were knocked out.
- e. ADDITIONAL COMMENTS: This account is based largely on WWII combat interviews.
- f. MAJOR SOURCE(S) CONSULTED: MacDonald and Mathews, Three Battles; MacDonald, Siegfried Line.

Action 17

- a. DATE: 15 November 1944
- b. LOCATION: Distroff, Germany
- c. UNIT(S) INVOLVED: 2/358th Infantry, 90th Infantry Division; elements of 712th Tank Battalion and 773d Tank Destroyer Battalion
German: Kampfgruppe from 25th Panzer Grenadier Division

d. DESCRIPTION: Following a twenty minute artillery bombardment, which started a little before 0700, the Germans attacked from three different directions. One attack, consisting of an infantry battalion, was stopped by artillery fire. As they neared the village, German tanks and assault guns came under heavy fire, eventually driving off (or destroying) much of the armor and leaving the infantry alone to carry on the attack. However, from the account in the official history, the armor apparently returned: "With his battalion pressed back into the buildings by swarms of German infantry and armor, Major Wallace called down 4.2 chemical mortar fire and all available artillery fire on the streets of the town." After four hours of fighting, which the 90th Infantry Division AAR called "the most violent blow of the campaign," the Germans broke off, leaving 150 dead and 4 tanks, 4 assault guns, and 16 half-tracks.

- e. ADDITIONAL COMMENTS:
- f. MAJOR SOURCE(S) CONSULTED: Cole, The Lorraine Campaign, 410-12 (quoted above, 412).

Action 18

- a. DATE: "before daylight," 5 December 1944
- b. LOCATION: Lucherberg, Germany
- c. UNIT(S) INVOLVED: (at the least) Company F, 145th Infantry, 104th I.D.
German: 8th Regiment, 3d Parachute Division

d. DESCRIPTION: "Employing some eight to ten tanks and assault guns and about 450 infantry ... the Germans sneaked into the village through the early morning darkness. For several hours the fighting raged at close quarters. Two of the American tanks and one of the 57-mm. antitank guns were knocked out early in the engagement. One of the towed tank destroyers accounted for two German assault guns which bogged down in the mud on the fringe of the village. Firing upon a German infantryman who apparently was carrying explosives, a squad of American infantry watched in horror as the German literally disintegrated in a loud explosion. An enemy tank laid some direct hits into Company F's command post, killing several men, including the commander and the artillery observer." Nevertheless, thanks to "a noteworthy assist from mortars and artillery, the men of the 415th Infantry were in control of the situation by 0830."

e. ADDITIONAL COMMENTS: German losses included 2 Mark Vs, 2 Mark VIs, and two assault guns. According to 104th Division Artillery AAR, 8,000 rounds were fired in the vicinity of Lucherberg in two hours time.

f. MAJOR SOURCE(S) CONSULTED: MacDonald, Siegfried Line (quoted above, p.514).

Action 19

a. DATE: 17 December 1944
b. LOCATION: Murringen, Belgium
c. UNIT(S) INVOLVED: Company E, 2/394th Infantry, 99th Infantry Division

d. DESCRIPTION: 2/394th Infantry was holding north flank of regimental line at Murringen. At dawn the Germans attacked along the Neuhoof road with tanks, directly attacking Company E. Artillery support and battalion mortar support augmented the Company's use of bazookas, with which it killed three tanks and halted the attack.

e. ADDITIONAL COMMENTS:
f. MAJOR SOURCE(S) CONSULTED: Cole, The Ardennes.

Action 20

- a. DATE: 17 December 1944
- b. LOCATION: Near Krinkelter Wald, Belgium
- c. UNIT(S) INVOLVED: 3/23d Infantry, 2d Infantry Division

d. DESCRIPTION: Battalion was in line with 1/393d Infantry. German tanks and infantry attacked Company I, on the open left flank, which "went to pieces" after expending its ammunition and trying to withdraw. Company K was then attacked, but withdrew successfully, with the exception of one platoon which was destroyed. Two U.S. tanks moved forward to a crossroad near Company K position. Both were knocked out, as were two German tanks. Company L retreated orderly.

e. ADDITIONAL COMMENTS: Two individuals (machine gunners), one each from Company K and I received the Medal of Honor for covering the retreat. The battalion received a DUC.

f. MAJOR SOURCE(S) CONSULTED: Cole, Ardennes, 99-100.

Action 21

a. DATE: 17 December 1944
b. LOCATION: Near Rocherath, Belgium
c. UNIT(S) INVOLVED: 1/9th Infantry 2d Infantry Division
(with Company K, 3/9th Infantry attached); with three guns from
644th TD Battalion

d. DESCRIPTION: Around 1930 three German tanks and perhaps a
- platoon of infantry passed through Company B before they were
recognized as German. At approximately 2000, Company B engaged
more of the same. Two tanks were disabled by mines, two others
by bazookas. 15th FA Battalion provided support. An hour later,
approximately 5-6 German tanks fired at the battalion for a half
hour. A subsequent German infantry attack was cut down. A
combined attack followed, which penetrated the battalion's
position. One crippled tank was doused with gasoline and lit with
thermite grenades. When the attack moved into the Company A
sector, artillery "responded to the urgent call for help and
within three minutes dropped in a concentration that stopped the
assault."

e. ADDITIONAL COMMENTS: Battalion had fifteen extra
bazookas. One individual received the Medal of Honor for
destroying three tanks with bazooka rounds.

f. MAJOR SOURCE(S) CONSULTED: Cole, The Ardennes, 109-10;
After Action Report, 644th TD Battalion (photocopy, Armor School
Library, Fort Knox).

Action 22

a. DATE: The Germans dealt their "hardest blows" on 21 December; however, there were numerous engagements with German armor during the period 19 - 22 December 1944.

b. LOCATION: Dom Butgenbach, Belgium

c. UNIT(S) INVOLVED: 2/26th Infantry, 1st Infantry Division; 5th FA Battalion, 33d FA Battalion (also 1st I.D.); and other elements from the 26th Combat Team. Also, 634th TD Battalion.

For the first day, the 26th RCT was rather isolated, until the 16th Infantry arrived toward evening. The 26th Infantry was tied into the 2d Infantry Division on its left flank. By 21 December, the 26th Infantry had "at least" ten FA Battalions in support, as the batteries of the 2d and 99th Infantry Divisions were tied into the 1st Division FCC.

German: 25th Panzer Grenadier Regiment, 12th SS Panzer Regiment, 12th SS Panzer Division, or elements thereof, were present.

d. DESCRIPTION: About three hours before dawn, 21 December 1944, German artillery began firing against the American front line, and continued until dawn. As Germans began to advance after dawn, American FOs called on "at least" ten battalions of artillery for defensive box barrages, which "succeeded in discouraging the German infantry." German armor attacked the battalion's right, "searching out the automatic weapons which had earlier helped check the infantry assault. ... the BAR and machine gun crews were wiped out." German armor moved through "this gaping hole" and headed for Dom Butgenbach. A Self-Propelled TD (634th TD Battalion) "accounted for seven tanks," and Sherman tanks accounted for two more, before being knocked out. Three German tanks succeeded in entering the village. Two were eventually destroyed by recently arrived 90mm TDs, while the third escaped.

e. ADDITIONAL COMMENTS: Actions against German armor took place 19-22 Dec 44.

Artillery received greatest credit for repelling the attack. Estimate is that over 10,000 rounds of artillery were fired in an 8 hour period.

f. MAJOR SOURCE(S) CONSULTED: Cole, The Ardennes, 129 ff. (esp 131-33); CPT D. Rivette, "The Hot Corner at Dom Butgenbach," Infantry Journal (October 1945): 19-23.

Action 23

- a. DATE: 21 December 1944
- b. LOCATION: Hotton, Belgium
- c. UNIT(S) INVOLVED: Primarily 51st Combat Engineer Battalion
- d. DESCRIPTION: Major activity took place defending a bridge through Hotton. Individual actions--a single U.S. tank, a PVT manning a 37 mm. gun, and a PVT with a bazooka--were most significant.
- e. ADDITIONAL COMMENTS: Hechler study contains great detail on the Battalion's deployment in its defensive positions (including map coordinates). A good study of a small-unit action.
- f. MAJOR SOURCE(S) CONSULTED: Ken Hechler, Holding the Line; Cole, Ardennes; Beck, et. al., Corps of Engineers: The War Against Germany.

Action 24

- a. DATE: 2300 20 December 1944
- b. LOCATION: Stoumont, Belgium
- c. UNIT(S) INVOLVED: 1/119th Infantry, 30th Infantry Division, + 1 tank company from 740th Tank Battalion
- d. DESCRIPTION: In the early evening the Americans captured a sanatorium in the town. The Germans counterattacked just before midnight with armor and infantry, and recaptured the sanatorium, but were unable to breakthrough due to "accurate and incessant shellfire."
- e. ADDITIONAL COMMENTS: Germans tried again at 210530 Dec, but were turned back by artillery fire and tank reinforcements.
- f. MAJOR SOURCE(S) CONSULTED: Cole, The Ardennes, 349-51

Action 25

a. DATE: 3 January 1945
b. LOCATION: Longchamps, Belgium
c. UNIT(S) INVOLVED: 2d Battalion, 502d Parachute Infantry,
101st Airborne Division; 81st AAA Battalion.

d. DESCRIPTION: German tanks and infantry attacked. They achieved some penetration during the three hour battle before being repulsed. The 502d suffered heavy casualties, partially due to its inability to combat the German armor. Unit history estimates 30-40 German tanks were involved, 11 of which provided overwatch fire during the battle. Four of the 2d battalion's five 57-mm. guns were knocked out. "The antitank gunners of Battery C, 81st AAA Battalion were credited with knocking out ten Mark IV tanks.... Seven of these were knocked out by one crew."

e. ADDITIONAL COMMENTS: Unit history (page 626) gives tank kill credits, and estimates that two-thirds of attacking armor was destroyed or damaged.

f. MAJOR SOURCE(S) CONSULTED: Rapport and Northwood, Rendezvous With Destiny, 622-26 (quoted above, 626); MacDonald, Last Offensive, 36.

Action 26

- a. DATE: 4 January 1945
- b. LOCATION: Longchamps, Belgium
- c. UNIT(S) INVOLVED: Elements of 101st Airborne Division;
German: 104 Panzer Grenadier Regiment, 15th Panzer Grenadier Division
- d. DESCRIPTION: German infantry and armor (approximately eleven tanks and self-propelled assault guns) attacked Longchamps, the brunt of the attack falling on 1/327th Parachute Infantry, which had relieved the 1/502d. They were prevented from seizing town by paratroopers supported with intense artillery fire. According to MacDonald, the division claimed thirty-four tanks as destroyed; however, it seems more likely that this was a two-day total.
- e. ADDITIONAL COMMENTS: While this was "the heaviest coordinated attack launched against [the division's] positions to date," the division had been forewarned by a German PW.
- f. MAJOR SOURCE(S) CONSULTED: MacDonald, Last Offensive, 36-37; Rapport and Northwood, Rendezvous With Destiny, 627-30.

Action 27

a. DATE: three actions, commencing at dawn, noon, and 1430 on 18 January 1945

b. LOCATION: Butzdorf and Tettingen, Germany

c. UNIT(S) INVOLVED: Elements of 94th Infantry Division;
German: 11th Panzer Division

d. DESCRIPTION: German force attacked out of Orscholz Switch, with axis of attack from Sinz through Butzdorf and Tettingen. Force consisted of 2 Panzer Grenadier regiments, 30 MARK IV tanks, and 20-30 assault guns. Following a twenty minute bombardment, the German force attacked both towns. The action lasted about an hour. American forces used mines, 57-mm. guns, and bazookas against the German armor. "Shortly after 0900 the Germans fell back, but just before noon ten tanks again emerged from Sinz, took up hull defilade positions and persistently pounded the two villages. At 1430 three fresh battalions of German infantry launched a fresh assault, this time primarily directed at Butzdorf," where a single American infantry company became isolated. The American company retreated after nightfall, leaving the Germans in control of Butzdorf, while the 284th and 919th FA Battalions provided covering fire.

e. ADDITIONAL COMMENTS:

f. MAJOR SOURCE(S) CONSULTED: Byrnes, History of the 94th Infantry Division, 120-28; MacDonald, Last Offensive, 119-20 (quoted above, 120).

Action 28

- a. DATE: 24 January 1945
- b. LOCATION: Maison Rouge, at Ill river, near SE corner of Colmar forest
- c. UNIT(S) INVOLVED: Company I, 3/15th Infantry, 3d Infantry Division
- d. DESCRIPTION: Company occupied a crossroad on the unoccupied side of Ill river, beyond the bridgehead (where Company K was deployed). At 0800 the Germans attacked Company I with 13 assault guns, approximately 1 company of infantry, and a few tanks and other vehicles. The company was overrun (some members literally)--3d platoon largely captured--and retreated to Company K position.
- e. ADDITIONAL COMMENTS: Bridge had broken the previous day, thereby denying American armor support, except fire by tanks and TDs from across river. Battle continued until mid-afternoon, when 1/15 Infantry counterattacked with armor and drove off the Germans.
- f. MAJOR SOURCE(S) CONSULTED: Clarke draft manuscript, "Riviera to the Rhine," chapter 29.

Action 29

- a. DATE: 23-24 February 1945
- b. LOCATION: Bolsar, Germany
- c. UNIT(S) INVOLVED: 406th Infantry Regiment, 102d Infantry Division;
German: 363d Infantry Division (plus augmentations)

d. DESCRIPTION: Bolsar was attacked "at least seven different times. The first thrust hit just before 2100, employing a mixed force of about twenty assault guns and tanks accompanied by about 150 infantry." Artillery fire dispersed the first attack; however, later thrusts penetrated into the town. Infantry killed four MARK Vs with bazookas. "What the Americans reckoned as the fourth try brought the gravest crisis. Three hours before dawn on 24 February, tanks and infantry swarmed into the village, While the Americans huddled in cellars, forward observers called down artillery fire on their own positions. By daylight the Germans had fallen back, and a count revealed a surprisingly low total of thirty American casualties."

e. ADDITIONAL COMMENTS:

- f. MAJOR SOURCE(S) CONSULTED: MacDonald, Last Offensive, 155 (quoted above).

Action 30

- a. DATE: 30 March 1945
- b. LOCATION: Kirchboren and other points, six miles from Paderboren
- c. UNIT(S) INVOLVED: "Task Force Richardson" (elements of 36th Armored Infantry and the 32d Armored), 3d Armored Division

d. DESCRIPTION: "Hardly had Task Force Richardson resumed the advance when the point bumped into a defensive line hastily manned during the night by students from an SS panzer reconnaissance training battalion and an SS tank training replacement regiment, banded together with support from an SS tank replacement battalion of approximately sixty Tiger and Panther tanks into a unit named SS Ersatzbrigade Westfalen. By midafternoon Richardson's men had forced their way into a town [Kirchboren] only six miles short of Paderboren. There they fought the rest of the day and much of the night against at least two tanks and more than 200 Germans, most of whom employed Panzerfaust antitank weapons with suicidal fervor."

e. ADDITIONAL COMMENTS: It is surprising that there is not more detail on what happened to all those tanks. The unit history cited below does not mention the sixty tanks. It does, however, mention a new German tank destroyer mounting a 128-mm. gun, and mentions the two-tank (destroyed by tank destroyers of the 703d ID Battalion) action.

f. MAJOR SOURCE(S) CONSULTED: MacDonald, Last Offensive, 352 (quoted); Spearhead in the West, 142-44.

ENCLOSURE B

SELECTED SOURCES

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Novato, CA: Presidio Press, 1984.

United States Army in World War II (Washington, DC: Office of the
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George F. Howe, Northwest Africa: Seizing the Initiative in
the West (1957)

Martin Blumenson, Breakout and Pursuit (1961)

Hugh M. Cole, The Lorraine Campaign (1950)

Charles B. MacDonald, The Siegfried Line (1963)

Hugh M. Cole, The Ardennes: Battle of the Bulge (1965)

Charles B. MacDonald, The Last Offensive (1973)

Charles B. MacDonald and Sidney T. Mathews, Three Battles:
Arnaville, Altuzzo, and Schmidt (1952)

Wilson, John B. comp. Armies, Corps, Divisions and Separate
Brigades. Washington, D.C.: Center of Military History, 1987.

ATTACHMENT 2

LIST OF SOURCES OF INFORMATION TO BE CONSULTED

1. All sources listed cited in Attachment 1 to the SOW shall be consulted for information on the action with which they are associated.
2. In addition, the archives and other sources listed below shall be searched for information they may contain on any of the actions listed in Attachment 1 to the SOW.
 - a. National Archives and Record Service, Eighth Street and Pennsylvania Avenue, Washington, DC 20408. Phone 202-523-3134.
 - b. Washington National Records Center, Suitland, Maryland.
 - c. US Army Center of Military History, Pulaski Building, 20 Massachusetts Avenue, NW, Washington, DC 20001. Phone 272-0301.
 - d. US Army Military History Institute, Carlisle Barracks, Pennsylvania 17013.
 - e. US Military Academy (History Department and Library), West Point, NY 10996.
 - f. US Army Infantry Center and School, Ft. Benning, GA.
 - g. US Army Armor Center and School, Ft. Knox, KY.
 - h. US Army Artillery Center and School, Ft. Sill, OK.
 - i. US Army Combat Studies Institute, Fort Leavenworth, Kansas 66027.
 - j. Commandant, US Air War College, Maxwell Air Force Base, AL 36112-5532.
 - k. Commander, US Army Combat Developments Experimentation Command, Fort Ord, CA 93941.
 - l. German Archives (especially, but not necessarily limited to, those in Frieberg)
 - m. Branch Journals
 - n. Unit Histories
 - o. Military Periodicals
 - p. Individual and Unit Citations
 - q. Morning Reports
 - r. Histories written by independent historians
3. A DTIC search for relevant information shall be requested and paid for by the contractor.
4. Additional sources may be consulted as necessary to complete the work called for by this SOW.

ATTACHMENT 3

DATA ITEMS AND DATA REPORTING FORMS

1. The items of data listed below are of primary importance. Every effort shall be made to complete all such items of data for at least ten of the actions listed in Attachment 1 to the SOW.

a. (See attached list of DOAE list of data items).

b. (See attached draft data collection forms prepared by US Army Center of Military History).

2. The following items of data are important to assessing the combat performance of antiarmor weapons, and will also be useful for other purposes. Any such information discovered in the course of this work should also be recorded and made a permanent part of the systematized data files.

a. Local weather and time-of-day conditions, particularly those that affect light and visibility conditions.

b. Extent of warning of approaching attack, and intelligence on its size and composition.

c. Quality of the preparation of the defensive position (protection, cover, concealment, prepared alternate positions).

d. Size of the on-hand supply of suitable types of ammunition.

e. Air and artillery support of the attacking armor elements, and the extent to which this suppressed defensive fires.

f. Size and activity of the infantry accompanying the armor attack.

g. Number of overwatching versus maneuvering tanks.

h. Type of attack maneuver used (e.g., advance by bounds, by echelon, dash, etc.).

i. Disposition of defensive weapons and their location relative to the attack.

j. Maximum effective ranges of the attacking and defensive weapons considering the nature of their targets and other local conditions.

k. Roughness and vegetation of the local terrain.



MINISTRY OF DEFENCE

Defence Operational Analysis Establishment

Broad Oaks Parvis Road West Byfleet Weybridge Surrey KT14 6LY

Telephone Army Network Byfleet Military ext
Civil Network (STD Code 09323) Byfleet 41199

Director CAA
8120 Woodmount Avenue
BETHESDA Maryland
For attn: Special Assistant for Model Validation,
Mr Dick Lester

Your reference

Our reference

D/DOAE/44/670
Date

16 February 1988

Dear Mr. Lester

ANALYSES OF COMBAT DEGRADATION

Following our discussions earlier last year, we were interested to receive Mr Vandiver's letter of 8 December to Director DOAE reopening this issue.

In principle we remain keen to pursue this on the original basis proposed by DUSA-OR, that you fund a US contractor while we act as joint technical authority to supervise an agreed programme. The copies of DOAE Memorandum M83108, reporting on the equivalent small arms analysis, have now been sent to DUSA-OR.

The outline of the approach annexed would be as below:

a. Collect historical data on samples of WWII defence with anti-tank weapons, classified by towed and SP weapons, and tanks. (US archive data could be pooled with UK data, already being compiled, to build up an adequate, broad based sample).

b. Examine these data in comparison with anti-armour trials to establish effect of target availability, suppressive fire, weapon type, range of engagement and defence nationality.

c. Collect historical data on two sets of modern combat including Middle East wars. This would cover:

(1) Small arms defence for comparison with M83108 and to establish national variations for participants covered by (2) below.

(2) ATGW and other anti-tank (inc tanks to explore similarities and differences from relationships established from WWII data.

We are using Ex CHINESE EYE III data to aid comparisons at (b); the use of US data from, inter alia, ARCOMS II, TETAMS III and NTC battles may also provide an extra basis for comparison and understanding.

In view of the value of establishing a realistic estimate of the relative degradation of anti-armour systems and the relatively scarce real use of newer systems the approach outlined above is seen as the necessary route of investigation.

I shall be visiting Washington in late April with Dudley Edwards, Superintendent Field Studies and hope we can discuss progressing this with you on Thursday 28 April.

Yours sincerely

David Rowland

DAVID ROWLAND

DR/JMC

STATEMENT OF WORK REQUIRED ON ANTI-ARMOUR DEGRADATION

A1. Phase I Collect data on samples of World War II anti-tank defences, constructed to include sets of actions including the following, in non urban areas.

- a. US Towed anti-tank guns, all 57mm if possible.
- b. German Towed anti-tank guns, 50 - 88mm.
- c. " -S.P. anti-tank guns - open topped (HARDER/NASHORN)
- d. " " " " " - fully armoured (Stu.G.III, IV HETZER, JAGD PANTHER)
- e. US S.P anti-tank guns - open turreted (M.10, M18, M.36)
- f. " " " " " (G.M.C. M3)
- g. US Tanks divided by type.
- h. German Tanks. " "
- i. US Bazooka.
- j. German Panzerfaust.

A2. Each action must have the following data:

- a. No of defence anti-tank weapons present and in visual contact with enemy; plus deployment qualification.*
- b. No of enemy tanks (+SP guns) attacking, including those giving fire support.
- c. No of attack tank (+SP guns) casualties and/or hit.
- d. Presence of infantry on each side and their strengths.
- e. Definition of artillery bombardment of defence positions - if applied.
- f. " " " " " of course of action including who withdrew or lost.

In addition, the following are desirable:

- g. No of rounds fired by any or all defence weapons.
- h. Defence weapons/user casualties.
- j. Range data.
- k. Maps of actions.
- l. Obstacles, met. data and time of day.

*Attack war diary data only will not be adequate for unsuccessful attacks, as defence strength may be wrongly assessed.

A3. At least 25 actions are estimated to be required in categories a and b, g and h, of para A1 with similar samples in the other cases desirable. Of these one group requires 50 spread over a range of force ratio. Any of category (a) in the Ardennes should be treated as a separate sub-category beyond the basic 25.

A4. A further sample of equivalent to (a) and/or (g) is also required with Italian or Russian weapons in defence.

A5. Given the data required and the low level of actions which occurred, it is anticipated that the data will relate to platoon/troop sized defence generally, sometimes up to (anti-tank) company size defence.

A6. Phase II (A) Analyse data in comparison with armour trials data for effect of:

force ratio

defence weapon group

attack suppression

correcting for broad categories of weapon/target combination and infantry presence.

(B) Compare with equivalent DOAE analysis and consider whether data

can be pooled.

A7. Phase III Collect data on small arms battles as follows:

- a. U.S. infantry - defence World War II
- b. German " " " " "
- c. Israeli " " through Arab/Israeli wars
(more than one war)
- d. Egyptian " " " " "
- e. Syrian " " " " "

A8. Each action should have the following data:

- a. No of defence infantry, nos and types of weapons,
including supporting indirect fire.
- b. No of attack infantry, no. of waves.
- c. Attack AFV.
- d. Defence anti-tank weapons.
- e. Definition of artillery bombardment of defensive positions, if applied.
- f. Attack casualties.
- g. Narrative of course of actions, including who withdrew or lost.

In addition the following are desirable.

h. Defence casualties.

j. Range data.

k. Maps of action

l. Obstacles, met and time of day.

A9. Phase IV Analyse data to compare with analysis in DOAE Memo M83108.

A10. Phase V Collect data on samples of post - World War II anti-tank defences - including the following:

a. Man carried ATGW in defence by weapon type and nationality of user.

b. Vehicle mounted " " " " " " " "

c. Tanks in defence " " " " " " " "

d. Infantry close range anti tank weapons (eg RPG7) " " "

e. Any other categories as in World War II (eg SU100, Archer)

In each group desirable samples are 25 for each nationality and weapon type, but it is acknowledged that this may not be obtainable.

A11. Phase VI Analyse data from Phase V to compare with those from Phase II and IV to estimate effectiveness of modern anti-tank weapons.

24/2

APPENDIX C
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-May 45 (ETO) [Call Number 808 T 501].

Ninth Tank Destroyer Group After Action Report, September-November 1944,
January-May 1945 (ETO) [Call Number 809 T 501].

Corps (12th Corps) - After Action Report Ninth Tank Destroyer Group, [Call
Number 809 T 501].

Corps US Army (12th Corps) - German counterattack in Twelfth Corps Section
19 September - 1 October 1944, [Call Number 812 C 307].

Armored Groups, 20th, 24th Corps 20th Armor Group - TFACS Report 314.7
2 August 1945, [Call Number 820 AG 501].

Twenty-third Tank Destroyer Group After Action Report, December 1944-May
1945, [Call Number 823 T 501].

607th Tank Destroyer Battalion

After Action Report 607th Tank Destroyer Battalion 8 September 1944, [Call
Number 8607 TD 101 AAR #575 U 847.6].

607th Tank Destroyer Battalion After Action Report, June 1944 - April 1945
[Call Number 8607 TD 101].

609th Tank Destroyer Battalion

609th Tank Destroyer Battalion After Action Report, October 1944 - January 1945, [Call Number 8609 TD 101].

609th Tank Destroyer Battalion After Action Report, January 1945, [Call Number 8609 TD 101 AAR 847.7].

610th Tank Destroyer Battalion

610th Tank Destroyer Battalion After Action Report August-October 1944, December 1944, [Call Number 8610 TD 101].

612th Tank Destroyer Battalion

612th Tank Destroyer Battalion After Action Report December 1944, [Call Number 8612 TD 101 AAR #452 847.9].

612th Tank Destroyer Battalion After Action Report, July - December 1944, February 1945, April - May 45, [Call Number 8612 TD 101].

630th Tank Destroyer Battalion

630th Tank Destroyer Battalion After Action Report January 1945, [Call Number 8630 TD 101 AAR #615 U 847-12].

630th Tank Destroyer Battalion After Action Report, August - November 1944, January - May 1945, [Call Number 8630 TD 101].

644th Tank Destroyer Battalion

644th Tank Destroyer Battalion After Action Report December 1944.

644th Tank Destroyer Battalion After Action Report, July 1944 - 9 May 1945 [Call Number 8644 TD 101].

691st Tank Destroyer Battalion

691st Tank Destroyer Battalion After Action Report, January 1945, March - May 1945, [Call Number 8691 TD 101].

772d Tank Destroyer Battalion

772d Tank Destroyer Battalion After Action Report, December 1944 - April 1945, [Call Number 8772 TD 102].

802d Tank Destroyer Battalion

802d Tank Destroyer Battalion After Action Report, August 1944 - April 1945 [Call Number 8802 TD 101].

805th Tank Destroyer Battalion

805th Tank Destroyer Battalion After Action Report, January 1943 - April 1945, [Call Number 8805 TD 101].

807th Tank Destroyer Battalion

807th Tank Destroyer Battalion After Action Report, October 1944 - March 1945, [Call Number 8807 TD 101].

808th Tank Destroyer Battalion

808th Tank Destroyer Battalion After Action Report, September 1944 - May 1945, [Call Number 8808 TD 101].

817th Tank Destroyer Battalion

817th Tank Destroyer Battalion After Action Report, January - April 1945 [Call Number 8817 TD 101].

821st Tank Destroyer Battalion

821st Tank Destroyer Battalion After Action Report, January - December 1944, February - April 1945, [Call Number 8821 TD 101].

821st Tank Destroyer Battalion After Action Report November 1944, [Call Number 8821 TD 101 AAR #97 347-56].

823d Tank Destroyer Battalion

823d Tank Destroyer Battalion After Action Report, January - August 1944, December 1944 - April 1945, [Call Number 8823 TD 101].

823d Tank Destroyer Battalion After Action Report, August 1944, [Call Number 8823 TD 101 (AAR #588U)].

After Action Report, December 17-26 1944, [Call Number 8823 TD 101 823d TD Bn AAR (AAR #588 U)].

After Action Report, January 14-18 1945, [Call Number 8823 TD 101 823d TD Bn AAR (AAR #588 U)].

824th Tank Destroyer Battalion

824th Tank Destroyer Battalion After Action Report, August 1942 - September 1945, [Call Number 8824 TD 101].

2. TDBN Records at Suitland, Maryland

601st Tank Destroyer Battalion

TDBN-601-0 to 0.07 September 30, 1943 [Box 23543].

TDBN-601-0 (45748) Map -- "Cook's Tour" of the locations where the 601st operated.

TDBN-601-0 (27661) History of 601st Tank Destroyer Battalion.

TDBN-601-0.7 Unit Journal, 28 January - 19 March 1943.

TDBN-601-0.3 Unit Journals, 22 January - 31 December 1944.

TDBN-601-0.3 Unit Journals, 16-24 March 1943.

TDBN-601-0.3 Unit Journals, 5-20 September 1943.

TDBN-601-0.3 Unit Journals, October - November 1943.

TDBN-601-0.3 Unit Journals, January, February, March 1945.

TDBN-601-0.7 October 1 1943 to February 29 1944 [Box 23544].

TDBN-601-0.7 Unit Journals, October 1943.

TDBN-601-0.7 Unit Journals, November 1943.

TDBN-601-0.7 Unit Journals, December 1943.

TDBN-601-0.7 Unit Journals, 22-31 January 1944.

TDBN-601-0.7 Unit Journals, February 1944.

TDBN-601-0.7 March 1, 1944 to May 31, 1944 [Box 23545].

TDBN-601-0.7 Unit Journals, March 1944.

TDBN-601-0.7 Unit Journals, April 1944.

TDBN-601-0.7 Unit Journals, May 1944.

TDBN-601-0.7 June 1, 1944 to October 31, 1944 [Box 23546].

TDBN-601-0.7 Unit Journals, June 1944.

TDBN-601-0.7 Unit Journals, July 1944.

TDBN-601-0.7 Unit Journals, August 1944.

TDBN-601-0.7 Unit Journals, September 1944.

TDBN-601-0.7 Unit Journals, October 1944.
TDBN-601-0.7 November 1, 1944 to February 28, 1945 [Box 23547].
TDBN-601-0.7 Unit Journals, November 1944.
TDBN-601-0.7 Unit Journals, December 1944.
TDBN-601-0.7 Unit Journals, January 1945.
TDBN-601-0.7 Unit Journals, February 1945.
TDBN-601-0.7 March 1, 1945 to May 11, 1945 [Box 23548].
TDBN-601-0.7 Unit Journals, March 1945.
TDBN-601-0.7 Unit Journals, April 1945.
TDBN-601-0.12 October 1, 1944 to October 18, 1944 [Box 23549].
TDBN-601-0.12 Unit Messages, 1-6 October 1944.
TDBN-601-0.12 Unit Messages, 7-12 October 1944.
TDBN-601-0.12 Unit Messages, 13-18 October 1944.
TDBN-601-0.12 October 19, 1944 to TDBN-601-1.13 [Box 23550].
TDBN-601-0.12 Unit Messages, 25-31 October 1944.
TDBN-601-1.8 Roster 1943-45: empty.
TDBN-601-1.13 General Orders, 1941, 1943-1945.

602nd Tank Destroyer Battalion

TDBN-602-0.1 to TDBN-602-0.3 November 30, 1944 [Box 23551].
TDBN-602-0.1 (28612) History Tank Destroyer Battalion 15 December 1941 - 31 December 1943.
TDBN-602-0.3 (12659) Operation Report -- 602nd Tank Destroyer Battalion September 1944.
TDBN-602-0.3 (12659) Operation Report -- 602nd Tank Destroyer Battalion October 1944.
TDBN-602-0.3 After Action Report -- 602nd Tank Destroyer Battalion November 1944.

TDBN-602-0.3 December 1, 1944 to May 8, 1945 Tank Destroyer [Box 23552].

TDBN-602-0.3 (12659) Historical Records -- 602nd TD Bn -- December 1944.

TDBN-602-0.3 (12659) Historical Summaries - 602nd TD Bn - January - March - 8 May 1945.

TDBN-602-0.7 to TDBN-602-1.13 Tank Destroyer [Box 23553].

TDBN-602-0.7 Journal and File 602nd TD Bn 13 April 1942 - 8 March 1944.

TDBN-602-1.13 General Orders -- 602nd Tank Destroyer Bn 1942-45.

603d Tank Destroyer Battalion

TDBN-603-0.1 to TDBN-603-0.3 Tank Destroyer [Box 23554].

TDBN-603-0.3 (14250) After Action Report -- 603d Tank Destroyer Bn 21 July - 31 Dec 1944.

TDBN-603-0.3 (28623) Operation Report -- 603d TD Bn May-Dec 1944.

TDBN-603-0.3 (28623) Operation Report -- 603d TD Bn January - 6 May 1945.

TDBN-603-0.3 (14250) After Action Report -- 603d TD Bn (SP) January - 9 May 1945.

TDBN-603-0.1 (28621) History -- 603d Tank Destroyer Bn Yr 42.

TDBN-603-0.1 (28621) History -- 603d TD Bn Yr 43.

TDBN-603-0.1 (28621) History -- 603d TD Bn Yr 44.

TDBN-603-0.1 (28621) History -- 603d TD Bn Yr 45.

TDBN-603-0.7 to TDBN-603-1.13 Tank Destroyer [Box 23555].

TDBN-603-0.7 (28615) Unit Journal -- 603d TD Bn 25-30 September 1944.

TDBN-603-0.7 (28615) Unit Journal -- 603d TD Bn October 1944.

TDBN-603-0.7 (28615) Unit Journal -- 603d TD Bn November 1944.

TDBN-603-1.13 General Orders -- 603d TD Bn 1943-1945.

605th Tank Destroyer Battalion

TDBN-605-0 (TOWED) to TDBN-605-1.13 Tank Destroyer [Box 23556].

TDBN-605-0.3 (21409) After Action Report -- 605th TD Bn February, March, April, May 1945.

TDBN-605-1.13 General Orders -- 605th TD Bn 1943-1944.

606th Tank Destroyer Battalion

TDBN-606-0.1 to TDBN-606-1.13 [Box 23557].

TDBN-606-0.1 (28634) History-606th TD Bn 14 July 1941 - 27 February 1945.

TDBN-606-0.20 (28633) 606th News -- 606th TD Bn September-October 1944.

TDBN-606-1.13 General Orders -- 606th TD Bn 1941-1945.

607th Tank Destroyer Battalion

607th Tank Destroyer Battalion [Box 23558].

TDBN 607-0 Actions for December 1941 to May 1945.

TDBN 607-0.1 Unit History 607th TD Bn.

TDBN 607-0.1 Information on 607th TD Bn.

TDBN 607-0.3 Operation Report July-August 1944.

TDBN 607-0.3 Operation Report September-December 1944.

TDBN 607-0.7 June to December 1944 [Box 23559].

Folder June No information.

Folder July Messages, map overlays with gun positions, fire missions.

Folder September Messages, map of positions, consolidated reports of TD operations for 1 week.

Folder November Map overlays with defensive gun positions.

607th Tank Destroyer Battalion [Box 23560].

TDBN 607-0.7 to MD-0.2 Message files and map overlays.

609th Tank Destroyer Battalion

[Box 23562]

TDBN 609-0.1 History - 609th TDBN, 15 December 1941 - 31 December 1943.

TDBN 609-0.3 After Action Report - 609th TDBN, September - December 1944.

TDBN 609-0.1 History - 609th TDBN, 1 January - 13 November 1945.

TDBN 609-0.3 After Action Report - 609th TDBN, January - May 1945.

TDBN 609-0.7 Journal and File - 609th TDBN, December 1944 - 10 May 1945.

[Box 23563]

TDBN 609-0.7 Journal and File, 11 May - June 1945.

TDBN 609-1.13 General Orders, 1942-1945.

TDBN 609-1.14 Special Orders, 1 - 21 November 1944.

TDBN 609-2.2 S-2 and S-3 Journal - 609th TDBN, November 1944.

TDBN 609-2.2 S-2 and S-3 Journal - 609th TDBN, December 1944.

TDBN 609-2.2 S-2 and S-3 Journal - 609th TDBN, January 1945.

[Box 23564]

TDBN 609-2.2 S-2 and S-3 Journal, February 1945.

TDBN 609-2.2 S-2 and S-3 Journal, March 1945.

TDBN 609-2.2 S-2 and S-3 Journal, April 1945.

TDBN 609-2.2 S-2 and S-3 Journal, 1 - 10 May 1945.

TDBN 609-3.2 S-3 Journal, 20 - 30 September 1944.

TDBN 609-CO(C)-0.3 After Action Report - Co "C" - 609th TDBN, 18 December 1944 - 2 January 1945.

TDBN 609-CO(C)-0.3 After Action Report - Co "C" - 609th TDBN, 14 - 18 January 1945.

610th Tank Destroyer Battalion

[Box 23565]

TDBN 610 After Action Reports, September 1944.

[Box 23566]

TDBN 610 Unit Journals, December 1944.

[Boxes 23567 through 23569]

TDBN 610 Map Overlays, G-2 Periodic Reports, and G-3 Situational Reports.

611th Tank Destroyer Battalion

[Box 23570]

TDBN 611 Book of Unit History.

[Box 23571]

TDBN 611 History Narrative, Battle of the Bulge, 17-21 December 1944.

[Boxes 23572 through 23573]

TDBN 611 Journals and Map Overlays.

614th Tank Destroyer Battalion

[Box 23574]

TDBN 614-0.1 History 614th TDBN, June 1943 - November 1946.

TDBN 614-0.1 History 614th TDBN, January 1943 - May 1945.

TDBN 614-0.2 Unit History, May 1945.

[Box 23575]

TDBN 614-0.3 Narrative Report - 614th TDBN, December 1944.

TDBN 614-0.3 Report of Operations - 614th TDBN, 8 May - September 1945.

TDBN 614-0.3 Narrative Report - 614th TDBN, January - February - 10 May 1945.

TDBN 614-1.13 General Orders, January 1944 - August 1946.

TDBN 614-3.2 S-3 Journal - 614th TDBN, December 1944.

TDBN 614-3.2 S-3 Journal (pt 1) - 614th TDBN, January 1945.

[Box 23576]

TDBN 614-3.2 S-3 Journal (pt 2) - 614th TDBN, January 1945.

TDBN 614-3.2 S-3 Journal (pt 3) - 614th TDBN, January 1945.

[Box 23577]

TDBN 614-3.2 S-3 Journal - 614th TDBN, 1 - 14 February 1945.

TDBN 614-3.2 S-3 Journal - 614th TDBN, 15 - 28 February 1945.

[Box 23578]

TDBN 614-3.2 S-3 Journal - 614th TDBN, 1 - 15 March 1945.

TDBN 614-3.2 S-3 Journal - 614th TDBN, 16 - 31 March 1945.

[Box 23579]

TDBN 614-3.2 S-3 Journal - 614th TDBN, April 1945.

TDBN 614-3.2 S-3 Journal - 614th TDBN, 1 - 10 May 1945.

TDBN 614-3.2 S-3 Journal - 614th TDBN, 11 - 31 May 1945.

626th Tank Destroyer Battalion

No useful information.

628th Tank Destroyer Battalion

[Box 23581]

TDBN 628-0 History-Victory TD-628th 1941 - 9 May 1945.

TDBN 628-0.1 History, 15 December 1941 - 9 May 1945.

TDBN 628-1.13 General Orders, 1942-45.

TDBN 628-Co(A)-0.2 History Co "A," 27 March - 27 April 1945.

TDBN 628-0.3 After Action Report, January - April 1945.

TDBN 628-0.7 Unit Journal 628th TDBN, July - August, October 1944.

TDBN 628-1.01 "Analysis of Personal Losses and Reinforcements for Separate TDBN Under Combat Conditions"- Cpt Sparks, S-1 August 1944 - January 1945.

TDBN 628-0.3 After Action Report - 628th TDBN, August - December 1944.

TDBN 628-0.7 Unit Journal - 628th TDBN, February 1945.

629th Tank Destroyer Battalion

[Box 23582]

TDBN 629-0.1 Unit History, Year 44.

TDBN 629-0.7 Journal 629th TDBN, July 1944.

TDBN-629 629th Tank Destroyer Battalion After Action Report, August 1944.

TDBN 629-0.7 Journal 629th TDBN, August 1944.

TDBN 629-0.7 Journal 629th TDBN, September 1944.

TDBN 629-0.7 Journal 629th TDBN, October 1944.

TDBN 629-0.7 Journal 629th TDBN, November 1944.

TDBN 629-0.7 Journal 629th TDBN, December 1944.

TDBN 629-0.3 After Action Report - 629th TDBN, January 1945 - June 1945.

TDBN 629-0.3 After Action Report - 629th TDBN, July - December 1944.

[Box 23583]

TDBN 629-0.7 Journal - 629th TDBN, January 1945.

TDBN 629-0.7 Journal - 629th TDBN, February 1945.

TDBN 629-0.7 Journal - 629th TDBN, March 1945.

TDBN 629-0.7 Journal - 629th TDBN, April 1945.

[Box 23584]

TDBN 629-0.7 Journal - 629th TDBN, May 1945.

TDBN 629-0.7 Journal - 629th TDBN, June 1945.

TDBN 629-0.7 Journal - 629th TDBN, September 1945.

TDBN 629-0.7 Journal - 629th TDBN, 1 May - 27 November 1945.

TDBN 629-0.9 Unit Report - 629th TDBN, February 1945.

TDBN 629-0.12 Messages - 629th TDBN, September 1944.

TDBN 629-1.13 General Orders - 629th TDBN, 1943, 1945.

TDBN 629-3.1 S-3 Periodic Report, 31 January - February 1945.

630th Tank Destroyer Battalion

[Box 23585]

TDBN 630-0.1 History 630th TDBN, 15 December 1941 - June 1943.

TDBN 630-0.1 History 630th TDBN, 15 December 1941 - 31 December 1943.

TDBN 630-0.3 After Action Report - 630th TDBN, June 1945.

TDBN 630-0.7 Unit Journal - 630th TDBN, August - September, November 1944.

TDBN 630-0.7 Unit Journal - 630th TDBN, January 1945.

TDBN 630-0.7 Unit Journal - 630th TDBN, February - May 1945.

[Box 23586]

TDBN 630-1.13 General Orders - 630th TDBN, 1945-1946.

TDBN 630-2.1 S-2 Periodic Report - 630th TDBN, June 1945.

TDBN 630-2.2 S-2 Journal - 630th TDBN, June 1945.

TDBN 630-3.2 S-3 Journal - 630th TDBN, June 1945.

TDBN 630-3.1 S-3 Periodic Report - 630th TDBN, June 1945.

TDBN 630-0.9 Unit Report, January - May 1945.

TDBN 630-0.9 Unit Report - 630th TDBN, July - December 1944.

631st Tank Destroyer Battalion

[Box 23587]

TDBN 631-0.1 History - 631st TDBN, 15 December 1941 - 31 December 1943.

TDBN 631-0.1 History, Year 44.

TDBN 631-0.1 History, Year 45.

TDBN 631-0.7 Unit Journal, 17 February - 15 December 1945.

TDBN 631-1.13 General Orders - 631st TDBN, 1942-1945.

TDBN 631-3.18 Troop Movement Orders, 14 December 1941 - 30 November 1945.

TDBN 631-0.7 Unit Journal, 26 August 1942 - 24 February 1945.

633rd Tank Destroyer Battalion

[Box 23592 TDBN 633-0 through TDBN 633-1.13]

Good TDBN organization charts but skimpy otherwise.

634th Tank Destroyer Battalion

TDBN-634-0.8 11-27-44 to 1-9-45 Tank Destroyer [Box 23605].

635th Tank Destroyer Battalion

[Box 23611 TDBN 635-0.3 through TDBN 635-MD-0.1]

AT action in Belgium, December 1944.

636th Tank Destroyer Battalion

[Box 23612 TDBN-636-0.3 1 September 1943 - 30 September 1944]

Operations Reports, Operation AVALANCHE, September - December 1943.

Reports for May, June, September 1944.

[Box 23613 TDBN-0.3 10 October - 31 December 1944]

No useful information. Roadblocking missions in October and November 1944.

638th Tank Destroyer Battalion

[Box 23621 TDBN-638-0.1 to 0.3]

Brief messages, lack of detail, no useful AT information.

[Boxes 23622 through 23630]

Journals with message logs, map overlays, no useful AT information.

641st Tank Destroyer Battalion

[Box 23634 TDBN-641-0.1 to 1.13]

Unit History, August 1944 - March 1945.

644th Tank Destroyer Battalion

[Box 23635 TDBN-644-0 to 0.3 30 November 1944]

Booklet of Unit History, Operations Reports for July, August 1944.

[Box 23636]

TDBN-644-0.3 644th Tank Destroyer Battalion After Action Report.

TDBN-644-0.3 Operations Reports 1 December 1949 to 31 March 1945.

[Box 23637 and 23639]

TDBN 644 After Action Reports.

645th Tank Destroyer Battalion

[Boxes 23639 through 23642]

Journals with map overlays from January to July 1944.

[Boxes 23643 through 23649]

Journals with map overlays.

[Box 23650 TDBN-645-0.7 to 0.12 1 April 1945]

All in 1945, not AT action.

[Box 23652 TDBN-645-2.2 to 0.3 1 October 1943]

Journals covering Operation DRAGON, no AT action discussed.

648th Tank Destroyer Battalion

[Box 23654 TDBN-648-0.1 to TDBN-649-1.13]

No useful AT information. 649th never left the US.

654th Tank Destroyer Battalion

[Box 23658]

Detailed History of the unit, August 1944, Mortain actions.

[Boxes 23659 through 23672]

S-3 Journal files and map overlays.

[Box 23662]

S-2 Journal, December 1944.

[Box 23665]

Unit Report, Detailed encounter and overlay, September 1944.

656th Tank Destroyer Battalion

[Box 23674]

History of the Unit.

[Boxes 23675 through 23678]

Journals and After Action Reports indicate no action against tanks.

691st Tank Destroyer Battalion

[Boxes 23686 and 23687]

History shows October 1944 arrival in France, Journals.

692nd Tank Destroyer Battalion

TDBN-692-0.3 692nd Tank Destroyer Battalion After Action Report.

TDBN-692-0.12 Battalion Message Log, [Box 23693].

701st Tank Destroyer Battalion

TDBN-701-0.1 From Oran to Tunisia History 701st TD Bn, 15 December 1941 - May 1945 and a Diary of 701st TD Bn, [Box 23699].

TDBN-701-0.3 [Box 23700]

TDBN-701-0.3 Operations Report, September 1942 - May 1945.

TDBN-701-0.3 Operations Report, 3 May - 31 October 1943.

TDBN-701-0.3 Operations Report, 1944.

TDBN-701-0.3 Operations Report, January 1944 - April 1945.

TDBN-701-0.3 Operations Report, June - December 1944.

TDBN-701-201.7 to 702-1.13 [Box 23701]

TDBN-701-0.7 Daily Journals, June 1945.

TDBN-701-1.13 General Orders, 1941-1945.

TDBN-701-2.2 4-1-44 to 7-31-44 [Box 23702]

TDBN-701-2.2 S-2 Journal, April 1944.

TDBN-701-2.2 S-2 Journal, May 1944.

TDBN-701-2.2 S-2 Journal, June 1944.

TDBN-701-2.2 S-2 Journal, July 1944.

TDBN-701-2.2 8-1-44 to 12-31-44 [Box 23703]

TDBN-701-2.2 S-2 Journal: four each for April, September, October, December 1944.

702d Tank Destroyer Battalion

[Box 23714]

TDBN 702-0.1 History - 702d Tank Destroyer Battalion Year 44.

TDBN 702-0.1 History - 702d Tank Destroyer Battalion Year 45.

TDBN 702-0.1 Brief History of 702d Tank Destroyer Battalion.

TDBN 702-0.1 S-3 Report September-November 1944, April-June 1945.

TDBN 702-0.1 After Action (A/A) Report July 1944 - June 1945.

TDBN 702-0.1 Operational Report, 1-30 July 1945.

TDBN 702-2.01 After Action Report - 702d Tank Destroyer Battalion, June - Oct 1944.

TDBN 702-2.01 After Action Report - 702d Tank Destroyer Battalion, January - May 1945.

TDBN 702-2.14 Enemy Material Captured and Destroyed, June - December 1944.

TDBN 702-3.1 Periodic Reports, 19 July - 28 September 1944.

TDBN 702-3.1 S-3 Periodic Reports - 702d Tank Destroyer Battalion, March 1945.

TDBN 702-3.11 Letter Instruction - 702d Tank Destroyer Battalion,
July - August 1945.

TDBN 702-3.4 Messages - 702d Tank Destroyer Battalion, March 1945.

TDBN 702-3.13 Training Schedules - Co "A", 11-13 December 1944.

TDBN 702-3.20 Assignments, 27 October 1944.

TDBN 702-3.23 Firing Reports, 9-17 July 1944.

703d Tank Destroyer Battalion

TDBN-703-0.2 to TDBN 703-3.11 [Box 23715]

Folder 6872 Historical Report 703d TDBN January-May 1945.

Folder 47696 S-3 Journal, messages only.

Folder History No information.

704th Tank Destroyer Battalion

TDBN-704 History September 1944 - February 1945 [Box 23716].

TDBN-704 No useful AT information [Box 23717].

705th Tank Destroyer Battalion

[Box 23718]

History, S-3 Report, Map overlay, July - December 1944.

[Box 23719]

Mix of Orders, S-2 files -- not too informative.

771st Tank Destroyer Battalion

TDBN-771 After Action Report [Box 23723].

772nd Tank Destroyer Battalion

TDBN-772 Information December 1944 through April 1945.

773d Tank Destroyer Battalion

TDBN-773-0.3 773 TD BN After Action Report [Box 23725].

TDBN-773-0.9 773 TD BN Journal [Box 23725].

774th Tank Destroyer Battalion

TDBN-774-0.1 to TDBN-774-0.3 Tank Destroyer [Box 23739]

TDBN-774-0.1 History 774th TD Bn 15 December 1941 - 8 May 1945.

TDBN-774-0.3 (8751) After Battle Report -- 774th TD Bn January - March 1945.

TDBN-774-0.3 (8751) After Action Report -- 774th TD Bn April 1945.

TDBN-774-1.13 to TDBN-775-1.13 Tank Destroyer [Box 23740]

TDBN-774-1.13 General Orders -- 774th TD Bn 1943-1945 January 1945.

TDBN-774-3.2 (47494) S-3 Journal -- 774th TD Bn September-December 1944.

776th Tank Destroyer Battalion

TDBN-776-0 to TDBN-776-0.6 [Box 23741]

TDBN-776-0 Informal History, July 1941 - 8 May 1945.

TDBN-776-0.1 History, July - May 45.

TDBN-776-0.1 History, May 45.

TDBN-776-0.3 Operation Report, July, November 1944.

TDBN-776-0.3 Operation Report, January - 11-31 May 1945.

TDBN-776-0.6 Narrative of TDBN, May 1944.

TDBN-776-0.3 Operation Report, 26 September - 31 December 1943.

TDBN-776-.7 11-1-43 to 2-28-45 [Box 23742]

TDBN-776-0.7 Unit Journals, November-December 1943.

TDBN-776-0.7 Unit Journals, December 1944.

TDBN-776-0.7 Unit Journals, January, July, November 1944.

TDBN-776-0.7 Unit Journals, January 1943.

TDBN-776-0.7 Unit Journals, November-December 1943.

TDBN-776-0.7 3-1-45 to TDBN 776-MD-0.1 [Box 23743]

TDBN-776-0.7 for March 1945, April 1945, 1-10 May 1945, 19-30 April 1944.

TDBN-776-1.3 General Orders, 1945.

TDBN-776-3.17 Operation Instructions (OIs), October-April 1945 and February-April 1945.

TDBN-776-0.1 History of Medical Detachment, December 1941-November 1945.

801st Tank Destroyer Battalion

[Boxes 23745 through 23749]

After Action Report, Journals full of map overlays, Brief log of events.

[Boxes 23750 through 23752]

S-3 Journals and Overlays.

802d Tank Destroyer Battalion

[Boxes 23753 through 23756]

No useful AT information.

803d Tank Destroyer Battalion

[Boxes 23763 through 23764]

S-3 Journals with map overlays.

805th Tank Destroyer Battalion

TDBN-805-0.1 to TDBN-805-0.7 10-31-43 [Box 23768]

TDBN-805-0.1 Battalion History, 3 February 1941 - 2 November 1945.

TDBN-805-0.2 History, 1-30 September 1944.

TDBN-805-0.2 Monthly History, June 1945.

TDBN-805-0.3 Operation Report, January-August, October-December 1944.

TDBN-805-0.3 Operation Report, January-June 1945.

TDBN-805-0.7 Unit Journals, March 1943.

TDBN-805-0.7 Unit Journals, April 1943.

TDBN-805-0.7 Unit Journals, 5-6, 18, 29 May 1943.

TDBN-805-0.7 Unit Journals, October 1943.

TDBN-805-0.7 11-1-43 to 12-31-43 [Box 23769]

TDBN-805-0.3 Battalion History and Casualty Reports, 17 January-31 December 1943.

TDBN-805-0.7 Unit Journals, November 1943.

TDBN-805-0.7 Unit Journals, December 1943.

TDBN-805-0.7 1-1-44 to 2-29-44 [Box 23770]

TDBN-805-0.7 Unit Journals, January 1944.

TDBN-805-0.7 Unit Journals, February 1944.

TDBN-805-0.7 3-1-44 to 4-30-44 [Box 23771]

TDBN-805-0.7 Unit Journals, March 1944.

TDBN-805-0.7 Unit Journals, April 1944.

TDBN-805-0.7 Unit Journals, August 1944, [Box 23773].

TDBN-805-0.7 Unit Journals, October 1944, [Box 23775].

TDBN-805-0.7 Unit Journals, November 1944, [Box 23776].

TDBN-805-0.7 Unit Journals, December 1944, [Box 23777].

TDBN-805-0.7 Unit Journals, January 1945, [Box 23778].

TDBN-805-0.7 Unit Journals, February 1945, [Box 23779].

TDBN-805-0.7 Unit Journals, March 1945, [Box 23780].

TDBN-805-0.7 4-1-45 to TDBN 805-1.13 [Box 23781]

TDBN-805-0.7 Unit Journals, April 1945.

TDBN-805-0.7 Unit Journals, May 1945.

TDBN-805-1.13 Gen Orders, 1942-1945.

807th Tank Destroyer Battalion

[Boxes 23783 through 23796]

Journals and map overlays.

808th Tank Destroyer Battalion

[Boxes 23798 through 23801]

Unit at Utah Beach, September 1944.

809th Tank Destroyer Battalion

[Box 23802]

History and Journals. No AT information.

[Box 23803]

No AT information.

811th Tank Destroyer Battalion

[Box 23804]

Unit Records, Journals, December 1944.

[Box 23805 through 23808]

Journals and After Action Reports.

813th Tank Destroyer Battalion

[Box 23809]

After Action Report, June through November 1944.

[Boxes 23810 through 23812]

Messages.

[Boxes 23814 through 23817]

Good map overlays.

[Box 23818]

Fire Missions for Company C.

814th Tank Destroyer Battalion

[Boxes 23819 through 23846]

Unit History, October - December 1944.

[Boxes 23820 through 23846]

Journals of messages and overlays.

817th Tank Destroyer Battalion

[Box 23823]

Unit History, July 1944 through January 1945.

[Boxes 23824 through 23827]

Journals, weak on combat actions.

818th Tank Destroyer Battalion

[Box 23828]

Unit History, July 1944.

[Boxes 23829 through 23839]

Handwritten Journals and map overlays - little anti-tank action.

820th Tank Destroyer Battalion

[Box 23841]

Unit History and After Action Report, December 1944.

[Boxes 23842 through 23844]

Year 1945 -- not too eventful.

823d Tank Destroyer Battalion

TDBN-823 Unit Journal, August 1944.

TDBN-823 G2 Journal & File, August 1944.

[Box 23847]

823d TD Battalion Unit Journal, August 1944.

[Box 23850]

823d TD Battalion Unit Report, G-2 Periodic Report, Messages, August
1-8 1944.

824th Tank Destroyer Battalion

[Boxes 23861 through 23869]

Good, useful information of action against German armor.

825th Tank Destroyer Battalion

[Box 23870]

History -- very skimpy.

827th Tank Destroyer Battalion

[Box 23871]

History, January 1945 -- good tank action.

893d Tank Destroyer Battalion

[Box 23873]

History, After Action Report July through December 1944, Handwritten
S-3 Journals.

894th Tank Destroyer Battalion

[Boxes 23874 through 23878]

History -- In Italy, at Anzio; supported British area.

899th Tank Destroyer Battalion

TDBN-899-0 to TDBN-899-0.2 [Box 23879]

TDBN-899-0 July 1940 - 20 June 1945.

TDBN-899-0.1 History draft, 1943.

TDBN-899-0.1 History, June 1944.

TDBN-899-0.2 Monthly history, February 1945.

TDBN-899-0.2 Monthly history, March 1945.

TDBN-899-0.2 Monthly history, April 1945.

TDBN-899-0.2 Monthly history, June 1945.

TDBN-899-0.3 [Box 23880]

TDBN-899-0.3 Operation Report, 15 March - 11 April 1943.

TDBN-899-0.3 Operation Report, January - 3 May 1945.

TDBN-899-0.3 Operation Report, 8 May - October 1945.

TDBN-899-0.7 6-1-44 to 12-31-44 [Box 23881]

TDBN-899-0.3 Operation Report, January - December 1944.

TDBN-899-0.7 Unit Journals, June 1944.

TDBN-899-0.7 Unit Journals, July 1944.

TDBN-899-0.7 Unit Journals, August 1944.

TDBN-899-0.7 Unit Journals, December 1944.

TDBN-899-0.7 1-1-45 to TDBN-899-1.13 [Box 23882]

TDBN-899-0.7 Unit Journals, January 1945.

TDBN-899-0.7 Unit Journals, February 1945.

TDBN-899-0.7 Unit Journals, March 1945.

TDBN-899-0.7 Unit Journals, April 1945.

TDBN-899-0.7 Unit Journals, December 1945.

TDBN-899-1.13 General Orders, 1940-1945.

****Records of the Tank Destroyer Center (Record Group 338) Boxes 1 - 69 also researched at Suitland, Maryland.**

Tank Destroyer Battalion Records at Carlisle Barracks, Pennsylvania (USAMHI)

Fifth Tank Destroyer Group History, 1 September 1942 to 9 May 1945.

McGrann, Roy T., Captain, The 610th Tank Destroyer Battalion, 11-25 September 1944, Dieulouard Bridgehead.

C. ETO COMBAT INTERVIEWS RESEARCHED AT SUITLAND, MARYLAND

1st Infantry Division Combat Interviews, 16-31 December 1944, "German Breakthrough," [File 1 Box 24012].

1st Infantry Division Combat Interview, "Summary of Butgenbach Battle," [File 7 Box 24012].

Combat Interviews, [File 209 Box 24017].

2nd Infantry Division Combat Interviews, 16 December 1944 - 16 January 1945, "German Breakthrough," [File 20 Box 24017].

Combat Interviews, Maps, History "La Maison Rouge: The Story of an Engagement 23-24 January 1945," [File 27 Box 24020].

Combat Interviews, History "30th Infantry in Operation GRANDSLAM," 30th Infantry/3rd ID by Lt. William Sutton, [File 27 Box 24020].

Combat Interviews, Citation for the 3rd ID for Croix de Guerre, [File 27 Box 24020].

4th Infantry Division Combat Interviews, 25 July - 8 August 1944, "St. Lo - Mortain," [File 31 Box 24021].

5th Infantry Division Combat Interviews, 8-24 September 1944, "Moselle River Crossing," "Monaville," [File 38 Box 24023].

Fort Driant, 3-11 October 1944, [File 39 Box 24023].

Assault on Metz, 9-24 November 1944, [File 40 Box 24023].

5th ID at Ardennes, 22-31 December 1944, [File 41 Box 24023].

Crossing the Meuse by the 9th ID, [File 55 Box 24027].

Siegfried Line and Hurtgen Forest, 9th ID efforts, [File 56 Box 24027].

Hamich Ridge, 16-29 November 1944, 9th ID, [File 57 Box 24027].

9th ID's Advance to the Roer River, 26 November - 14 December 1944, [File 58 Box 24027].

28th Infantry Division Combat Interviews, 1-9 November 1944, Hurtgen Forest Campaign, [File 74 Box 24032].

28th Infantry Division Combat Interviews, 2-16 November 1944, Hurtgen Forest Campaign, [File 75 Box 24032].

28th Infantry Division Combat Interviews, 2-8 November 1944, Hurtgen Forest Campaign, [File 76 Box 24032].

28th Infantry Division Combat Interviews, 2-16 November 1944, Hurtgen Forest Campaign, [File 77 Box 24032].

28th Infantry Division Combat Interviews, 16-24 December 1944, "German Winter Offensive," [File 78 Box 24033].

29th Infantry Division, Defense of Brest, 25 August - 15 September 1944, [File 88 Box 24036].

29th Infantry Division, "29 Let's Go," 4 October 1944, [File 89 Box 24036].

29th Infantry Division Roer-Rhine, 1 October 1944 - 1 March 1945, [File 90 Box 24036].

30th Infantry Division Combat Interviews, 14 June - 31 July 1944, "Isigny to Tessy-sur-Vire," [File 94 Box 24037].

30th Infantry Division at Lo Breakthrough, 26-28 July 1944, [File 95 Box 24038].

30th Infantry Division, "Mortain Counterattack," 6-12 August 1944 [File 96 Box 24038].

30th Infantry Division at Siegfried Line, 1-19 October 1944, [File 97 Box 24038].

30th Infantry Division at Siegfried Line, 1-19 October 1944 (photos and maps), [File 98 Box 24039].

30th Infantry Division at Siegfried Line, 2-17 October 1944, [File 99 Box 24039].

30th Infantry Division in the Ardennes, 16-25 December 1944, [File 100 Box 24039].

30th Infantry Division, Ardennes, 3-23 December 1944 (maps), [File 101 Box 24039].

82nd Airborne Division Combat Interviews, 18 December 1944 - 9 February 1945, "The Battle of the Bulge," [File 172 Box 24058].

82nd Airborne Division Combat Interviews, 18 December 1944 - 9 February 1945, "Houffalize to the Roer River," [File 173 Box 24058].

84th Infantry Division Combat Interviews, 19 December 1944 - 16 January 1945, "Ardennes," [File 183 Box 24061].

Combat Interviews, Regiment Commander, 376th Infantry/94th Infantry Division, [File C.1203 Box 24067].

Combat Interviews, [File 203 Box 24067].

99th Infantry Division Combat Interviews, 16-20 December 1944, "Ardennes," [File 209 Box 24069].

101st Airborne Division, Combat Interviews, 18 December 1944 - 2 January 1945, "The Seige of Bastogne," [File 227 Box 24074].

101st Airborne Division, Combat Interviews, 18 December 1944 - 2 January 1945, "The Battle of the Bulge," [File 228 Box 24074].

101st Airborne Division, Combat Interviews, 18 December 1944 - 2 January 1945, "Battle of the Bulge," [File 229 Box 24075].

101st Airborne Division, Combat Interviews, 19-27 December 1944, "Battle of the Bulge," [File 230 Box 24075].

Combat Interviews, "Operation Grenade," [File 232 Box 24076].

Combat Interviews, "Roer-Rhine Operation" Interviews by Capt Chester Goolrick, Jr (4th I&H Service) and Lt. John Williams, [File 232 Box 24076].

103d Infantry Division St. Die to Rhine, 29 October - 28 November 1944, [File 237 Box 24078].

103d Infantry Division Northern Alsace, December 1944, [File 238 Box 24078].

103d Infantry Division Bobenthal to the Siegfried Line, December 1944, [File 239 Box 24078].

3d Armored Division at Fromental, 7-28 August 1944, [File 261 Box 24089].

3d Armored Division from Mons to Namurs, 4-6 September 1944, [File 262 Box 24089].

3d Armored Division Battle of Mons, 1-19 September 1944, [File 263 Box 24089].

3d Armored Division at Siegfried Line, 12-25 September 1944, [File 264 Box 24089].

4th Cavalry Group at Siegfried Line, 1 September - 10 October 1944, [File 324 Box 24107].

4th Cavalry Group at Aachen and Ardennes, 20 December 1944 - 12 January 1945, [File 325 Box 24107].

4th Cavalry Group, Roer to the Rhine, 23 February - 8 March 1945, [File 326 Box 24107].

4th Cavalry Group, 1-19 April 1945, [File 327 Box 24107].

4th Cavalry Group, Ardennes, 20 December 1944 - 13 January 1945, [File 328 Box 24107].

"ETOUSA Battle Experiences, July 1944 - March 1945," [File 247-8 Box 24148].

82nd Airborne Division Combat Interviews, December 1944 - January 1945, "Belgium: The Story of the Bulge," [File 469 Box 24151].

"1st US Army Tank Destroyer Bulletin, 28 September 1945," [File 888 Box 24187].

Combat Interview, "Arnhem, The Landing and the Bridge, December 9, 1944," [File 932 Box 24198].

"German Command Interview: General Erich Brandenberger, CG 7th Armee - August 1944 Counteroffensive," [File 978 Box 24200].

"German 7th Armee War Diary, Daily Reports, Vols. III, IV, V," [Box 24237].

"German Army Group B War Diary, Phone Calls and Conversations, Document VI," [Box 24237].

"Interrogation Reports of German Infantrymen, August 15 - September 1944," [File 2068 Box 24255].

Combat Interviews, [File 196].

Combat Interviews, [File 241].

D. ORAL INTERVIEWS CONDUCTED BY SAIC

St. Barthelmy Engagement

Interview with L. Lawson Neel in Thomasville, Georgia, December 1989.

Interview with George Greene at SAIC, McLean, Virginia, January 1990.

Telephone Interview with G. Dean Noble, February 1990.

Telephone Interview (follow-up) with George Greene, February 1990.

Abbaye Blanche Engagement

Interview with Thomas Springfield at SAIC, McLean, Virginia, January 1990.

Telephone Interview (follow-up) with Thomas Springfield, February 1990.

E. MONOGRAPHS/MANUSCRIPTS

1. The Infantry School Library, Fort Benning, Georgia

Adams, James F., Capt, "Operation of Company F, 327th Glider Infantry (101) in Defense of Bastogne: 19-26 December 1944." Company in defense (Company Commander, 46-47 mono). [Microfilm Number D-488].

Adams, Jonathan E. Jr., MAJ, "Operation of 1st Battalion, 508th Parachute Infantry (82) near Bencheau (Bastogne), 22-25 December 1944." Company M defense and withdrawal (Company Commander, 47-48 mono). [Microfilm Number D-488].

Bartholomew, Howard I., MAJ, "Operation of 3/121st Infantry (8th ID) in Attack and Defense of Pleurtuit, FR, 8-12 August 1944." (Company Commander, 49-50 mono). [Microfilm Number D-491].

Carter, Daniel M., MAJ, "(S-3) Operations of 899th TD Bn (4th ID), 2-18 July 1944 (Normandy area after the landings)." TD in support of Infantry. [Microfilm Number D-493].

Carter, Sam, MAJ, "Operations of 1/18 Infantry Regiment at El Guettar, 17-25 March 1943." Bn in Defense. 47-48 Monograph. [Microfilm Number D-493].

Clayton, George A., Maj, "Operations of 3rd Battalion, 394th Infantry (99th ID), 16 December 1944 - 1 January 1945." (47-48 monograph). [Microfilm Number D-493].

Cook, James H., MAJ, Operations of Company I, 179th Infantry (45th ID) vicinity factory - Anzio, 16-18 February 1944." Company in defense. [Microfilm Number D-489].

Cooper, Osborn, Maj, "Operations of 411th RCT (103d Division) While Attached to Task Force Linden, vicinity Jessenheim, GE, 16-23 January 1945." (RCT S-3). [Microfilm Number D-494].

Daykin, Albert, Maj, "Operation of 1st Battalion, 119th Infantry (30) in Attack on Stoumont 19-22 December 1944." Infantry Battalion defending a road block and counterattacking (Artillery LNO). [Microfilm Number D-495].

DeReus, Clarence C., Capt, "Operations of 3rd Battalion, 242d Infantry Regiment (Task Force Linden) near Hagnenau, FR, 19-27 January 1945." Infantry Battalion in withdrawal, org of defense, and conduct of defense. (Battalion S-3, 48-49 monograph). [Microfilm Number D-495].

Dickerson, Robert L., MAJ, "Operation of 325th Glider Infantry Battle of Mt. St. Angelo (Salerno), 18-20 September 1943." Company in defense. [Microfilm Number D-495].

Evans, Robert H., Capt, "Operation of Company G, 327th Glider Infantry (101) Holland, 18 September-15 October 1944 (Market-Garden)." Infantry Company in defense and attack (Company Commander, 46-47 mono). [Microfilm Number D-496].

Fabianich, Keith P., Maj, "Operations of 3rd Battalion, 395th Infantry (9th ID), 10 November - 24 December 1944." Battalion in defense. (Company Commander and Battalion S-3 -- 47-48 monograph). [Microfilm Number D-496].

Fossum, Embert A., Maj, "Operations of Task Force L, 109th Infantry (28th ID) near Grosbous, Luxembourg, 20-23 December 1944." Reinf Infantry Company as security for flank. (Task Force Commander). [Microfilm Number D-497].

Galbreath, Robert B., MAJ, "Operation of 2d Battalion, 327th Glider Infantry (101) in Defense of Bastogne." (Battalion Company, 47-48 mono). [Microfilm Number D-497].

Gavin, Robert J., CPT, "Operation of 2nd Platoon, Company I, 133d Infantry (34th ID)." Rifle platoon attacked by enemy armor and infantry. [Microfilm Number D-489].

Gendron, Thomas J., Maj, "Operations of 2nd Battalion, 26th Infantry (1st ID) at Dom Butgenbach, BE, 18-21 December 1944." Infantry Battalion on reverse slope defense of hilly terrain against coord. Infantry/Tank attack. (Battalion S-3, 49-50 Monograph). [Microfilm Number D-498].

Guenther, Robert A., MAJ, "Operation of Company E, 180th Infantry (45th ID) during major offensive, 16-20 February 1944, at Anzio." Rifle Company defending against large scale attacks. [Microfilm Number D-498].

Hackett, Paul T., 1st LT, "Operations of 1st ID at El Guettar, 20-24 March 1943." ID defending against armored attack. [Microfilm Number D-498].

Hancock, William F. Jr., "Operations of 1st Battalion, 9th Infantry (2d ID) in Hasty Defense Against Armored Attack, 17-18 December 1944 (Battalion Xo -- 49-50 monograph). [Microfilm Number D-499].

Hankel, Halland W., Capt, "Operations of Company M, 38th Infantry (2d ID), vicinity of Krinkel, Belgium, 17-20 December 1944." Infantry heavy weapons company in defense, (Company Commander). [Microfilm Number D-499].

Hickman, David, Capt, "Operation of Battalion (?) 359th Infantry (90th ID) in closing Falaise Gap - Defense of Le Bourg St. Leonard, 14-19 August 1944." (S-3 - 49-50 mono). [Microfilm Number D-499].

Hickman, Don R., Capt, "Operation of 3/304th (76th ID) Crossing Kyll and Seizing Ovehofen, 3-5 March 1945." Battalion attack followed by counterattack (Company Commander, 48-49 mono). [Microfilm Number D-499].

Hollinger, John C., Maj, "Operation of 433d Infantry (106) at Schlussenback, GE, 15-20 December 1944." Infantry Regiment in defense withdrawal and attack. (Regiment asst S-3). [Microfilm Number D-500].

Hollstein, Jean W., Capt, "Operation of 506th Parachute Infantry (101) in Defense of Bastogne, 19-20 December 1944." Regiment in defense (49-50 mono). [Microfilm Number D-500].

Huebner, Otto W., 1st LT, "Operation Company A/504th Parachute Regiment - in defense of Hill 424, Altavilla (Salerno), 17-19 September 1943." Company in defense. [Microfilm Number D-500].

Hutchinson, Robert C. Jr., Capt, "Operation of Company B, 5630th TD Battalion Support of 110th Infantry Near Clervaux, Luxembourg, 16-31 December 1944." Towed TD Company in defense. [Microfilm Number D-500].

Kappel, Carl W., Cpt, "Operation of Company H, 504th Parachute Infantry Regiment (82), 17-21 September 1944 (Market-Garden)." Rifle Company dropped to secure key terrain (Company Commander, 48-49 mono). [Microfilm Number D-501].

Kemp, Harry M., MAJ, "Operation of 3d Battalion, 109th Infantry (28th ID) vicinity Diekirch, Luxembourg, 16-23 December 1944." Infantry Battalion in defense and withdrawal (Battalion XO). [Microfilm Number D-501].

Kemp, James B., MAJ, "Operation of 612th TD (Towed) (2 ID) vicinity Elsenborn corner, 16-31 December 1944." TD Battalion support attack being forced on defense (Bn XO). [Microfilm Number D-501].

Kerley, Ralph A., MAJ, "Operation of 2nd Battalion, 120th Infantry (30th ID) at Mortain, 6-12 August 1944." (Company Commander, 49-50 mono). [Microfilm Number D-501].

Keyes, Lewis H., MAJ, "Operation of 106th ID, 15-22 December 1944." [Microfilm Number D-501].

Kinslow, Albert V., Capt, "Operation of 1st Bn/379th Infantry (95th ID) at Saarlautern, GE, 2-6 December 1944." Battalion in River crossing, capture and defense of Bridge (Company Commander, 46-47 mono). [Microfilm Number D-502].

Koob, William L. Jr., CPT, "Operation of Anti-Tank Company, 317th Infantry (80th Division) in closing Falaise Gap, 18-20 August 1944." AT defense of RCT attack zone; AT and TD attachments (Company Commander). [Microfilm Number D-502].

LeGare, Ben W., Maj, "Operations of 2nd Battalion, 394th Infantry (99th ID), vicinity Losheimergraben, 16-19 December 1944." Infantry Battalion defending and retrograding (Battalion XO). [Microfilm Number D-502].

Long, Joseph W., "Operations of C Company, 691st Tank Destroyer Battalion, Nancy, 7 October 1944." Most of TD Company into defensive position (Company Commander). [Microfilm Number D-503].

Lunsford, James N. Jr., "Operations of 1st Battalion, 345th Infantry (87th ID) in Attack on Moiracy, BE, 30 December 1944-1 January 1945." Infantry Battalion in attack and defense of town. [Microfilm Number D-503].

Moon, William P. Jr., MAJ, "Operation of 1st Battalion, 422d Infantry (106th ID) vicinity Schlossbach, Germany, 10-19 December 1944." (Bn XO). [Microfilm Number D-505].

Musick, L.A., Capt, "Operation of 3d Battalion, 513th Parachute Infantry (17th AB) 25 December 1944-9 January 1945." (Battalion S-2, 46-47 mono). [Microfilm Number D-506].

Myers, Francis J. Jr., Capt, "Operations of 3rd Platoon, Company G, 505th Parachute Infantry (82d Airborne), at Salm River, vicinity Petite Halleux, BE, 25 December 1944." Platoon in defense (Platoon Leader 46-47 monograph). [Microfilm Number D-506].

Neffenger, Ralph E., Capt, "Operations of 3d Platoon, G Company, 517th Infantry (45th ID) at Anzio, 15-16 February 1944." Infantry Platoon defending key beachhead feature. [Microfilm Number D-490].

Oettinger, Frederic N. Jr., Capt, "Operation of Company B/12th Infantry Regiment (4th ID), 28 November-5 December 1944." Company attacking and defending in heavy woods (Company Commander, 48-49 mono). [Microfilm Number D-506].

Perry, Edwin A., MAJ, "Operation of 1st Battalion, 39th Infantry (9th ID) in Defense of Bivouac Area, 17 June 1944, Jacques-de-Nehou, France." (Company Commander, 49-50 mono). [Microfilm Number D-507].

Phillips, Ivan G., MAJ, "Operation of 502nd Parachute Infantry (101) in Defense of Bastogne, 24-25 December 1944." (Regiment Comms off, 47-48 mono). [Microfilm Number D-507].

Prysi, Henry F., Capt, "Operation of Company I, 399th Infantry (100th ID) vicinity Bitche, FR, 8-10 January 1945." (Company XO, defense of key terrain). [Microfilm Number D-507].

Ramsey, David L., LTC, "Operations of 894th TD Battalion in Battle of Kassarine Paso - personal experience of HHC Commander," [Microfilm Number D-508].

Redding, Frank J., LTC, "Operation of Company C, 701st TD Battalion with British First Army, vicinity Medgey - El - Pab - Beja Tunisia, 24 November-11 December 42 - personal experience," [Microfilm Number D-508].

Richardson, James, MAJ, "Operation of 1/39th Infantry (9th ID) at Cherence le Roussel, FR German Attack on Avranches, 4-10 August 1944 -- before Mortain." (Bn S-3, 47-48 mono). [Microfilm Number D-508].

Rivette, Donald E. Capt, "Operation of 2d Battalion, 26th Infantry (1st ID) at Dom Butgenbach BE, 16-21 December 1944." Infantry Battalion defending against Tank/Infantry attacks. (AT Company Commander, 48-49 monograph). [Microfilm Number D-508].

Roberts, Elvy B., MAJ, "Operation of 501st Parachute Infantry (101), 19-20 December 1944." Regiment in meeting engagement and defense (Regiment S -3, 47-48 mono). [Microfilm Number D-508].

Royce, Philip M., MAJ, "Operation of 2d Battalion, 141st Infantry (36th Division) during German Attack in Alsace, 1-4 January 1945." Battalion in defense (Battalion XO, 47-48 mono). [Microfilm Number D-509].

Sayre, Edwin M., MAJ, "Operation of Company A, 505th Parachute Infantry in Airborne Landing in Sicily 9-24 July 1943." Airborne attack. [Microfilm Number D-509].

- Schumacher, Fred W., Capt, "Employment of 2d Platoon, Company M, 33d Infantry (84th Division), 24-26 December 1944 (Ardennes)." MG Platoon in Defense combat against armor (Platoon Leader, 47-48 mono). [Microfilm Number D-509].
- Shi, James D. Jr., Capt, "Operation of 3d Battalion, 157th Infantry (45th ID) along Moletta River, Anzio, 7-8 February 1944." Battalion in night defense. [Microfilm Number D-510].
- Sickler, Robert L., Cpt, "Operation of Company D, 2d Battalion, 508th Parachute Infantry (82), 17-18 September 1944 (Market-Garden)." Infantry Company securing and holding a glider landing area (Platoon Leader, 48-49 mono). [Microfilm Number D-510].
- Simcox, Lawrence S., Maj, "Operation of 3rd Battalion, 376th Infantry (94th ID) in Attack and Defense of Nennig, Wier, and Gilling in the Saar-Moselle Triangle, 15-19 January 1945." (Heavy Weapons and Company Commander). [Microfilm Number D-510].
- Simmons, Wesley J., Capt, "Operation of Company K, 394th Infantry (99th ID) vicinity Elsenborn Ridge, 16-21 December 1944." Infantry Battalion withdrawing and defending key terrain (Company Commander). [Microfilm Number D-510].
- Siska, John R., 1st Lt., "Operation of Company A, 1st Battalion, 424th Infantry (106), 12-18 December 1944." Infantry Company defending (Platoon Leader -- 48-49 monograph). [Microfilm Number D-510].
- Smith, Edwin K. Jr., MAJ, "Operations of the Anti-Tank Platoon, 2/26 Infantry (1st ID) at El Ancar (Landing at Casablanca), 8-11 November 1942," [Microfilm Number D-510].
- Stark, Marshall W. Capt, "Operations of 1st Platoon, Battery C, 80th Airborne (Anti-Tank Platoon) (82 DW), 17 December 1944-11 January 1945." AT in support of Infantry Regiment (Platoon Leader -- 47-48 monograph). [Microfilm Number D-511].
- Sweet, William J. Jr., Capt, "Operation of 2/504 Parachute Infantry Regiment (82nd ID) at Anzio 22 January-23 March 1944." Battalion in attack and defense. [No Microfilm Number].
- Talbott, Orwin C. MAJ, "Operation of 359th Infantry Regiment (90th ID) Crossing Moselle, 9-14 November 1944." Regiment in river crossing and subsequent counterattacks (Regiment S-3, 48-49 mono). [Microfilm Number D-512].
- Tallerday, Jack, Capt, "Operation of 505th Parachute Infantry (82) in Battle of Grosebeck and Nijmegen (Market-Garden) 17-23 September 1944." (Company Commander). [Microfilm Number D-512].

Thornblom, Carlton, C., CPT, "Operation of 1st Battalion, 320th Infantry (35th ID), 10-12 August 1944 (Mortain)." Infantry Battalion attacking and defending in performing rescue mission. (Company Commander, 49-50 mono). [Microfilm Number D-512].

Troup, Paul A. Jr., MAJ, "Operation of 112th Infantry (28) in Huertgen Forest, 2-14 November 1944." Regiment in attack, defense, and withdrawal (Regiment HHC Commander, 47-48 mono). [Microfilm Number D-512].

Warden, Irving P., Maj, "Operations of Cannon Company, 110th Infantry (28th ID) in Defense of Munchausen, Luxembourg, 16-19 December 1944." Infantry Cannon Company in defense of a village (Company Commander). [Microfilm Number D-513].

Weigel, Levene J., Capt, "Operation of 1st Platoon, Company H, 422d Infantry (106th ID), 12-19 December 1944." MG platoon in attack and defense (Platoon Leader -- 48-49 monograph). [Microfilm Number D-512].

Wright, David B., Capt, "Operation of 1st Battalion, 110th Infantry (28th ID), vicinity of Hinerscheid and Marnach, Luxembourg, 16-18 December 1944." Infantry Battalion in defense of wide front. (Battalion S-3, 48-49 monograph). [Microfilm Number D-514].

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Trials Against Front Armour of German Mk. III Tanks, [Numbered box and folders of "George B. Jarrett Papers" at Archives, AMHI, Carlisle Barracks, PA].

US Tank Destroyer Units, WWII, [AMHI, Carlisle Barracks, PA Librarian File].

The George B. Jarrett Papers from unnumbered boxes at USMHI, Carlisle, PA

First Box

several unlabeled folders: Magazine clippings on Vietnam.

Second Box

first folder: Handwritten drafts of memoirs; Chapter XI discusses some aspects of munitions against tanks. This is like a diary, but appears to contain some details of observations and tests.

second folder: Thank you letters, etc.

third folder: Draft of long manuscript in post WWII visit to Europe.

fourth folder: Typed part of the draft memoirs.

fifth folder: Draft of "Two Buttons: Ordnance, the story of Military History" and 1945 diary on Mid-East visit. [SEE ENTRY on EIGHTH BOX]

Third Box

first folder: Draft of European visit - WWII.

second folder: Draft of Mid-East visit - WWII.

third folder: * Report on "Trials against Front Armor of German Mk. III Tanks" dated 24 May, 1942, GHQ MEF [Headquarters, Middle East Force ?].

Fourth Box

first folder: News clippings.

second folder: Ordnance museum pamphlets.

third folder: Press clippings.

fourth folder: Letters of commendation.

Fifth Box

- first folder: Personal letters.
- second folder: Clippings.
- third folder: * Draft article on the Afrika Korps related to Jarrett by Hans Klinger -- a participant.
- fourth folder: * Diagrams and notes on German munitions.
- fifth folder: Japanese weapons.
- sixth folder: British book on German weapons.

Sixth Box: Clippings on US Civil War.

Seventh Box: * Draft study on self-propelled "assault" guns.

Eighth Box

- first folder: Typed draft of "Ordnance, the Theme Song of Military History."
- second folder: Magazine & newspaper clippings on weapons.
- third folder: Personal papers.
- fourth folder: Description of German Panzerfaust, Hotchkiss gun, and 37mm.

Ninth Box (long, flat) Certificates.

Tenth Box (long, flat)

- first folder: Draft of "I Am an Unknown British Soldier [in North Africa]."
- second folder: Draft story on German Col Zoring.
- third folder: * Draft story on 37mm gun.
- fourth folder: * Draft article on German tanks.

Eleventh Box (long, flat) Letters and clippings (very disorganized).

Twelfth Box (long, flat) Letters and clippings (very disorganized).

Thirteenth Box Short drafts descriptions on guns and various weapons --
probably to go with museum displays.

Fourteenth Box Notes and clippings (very disorganized).

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APPENDIX D
INDEX OF FILES

INDEX FOR A2D2 FILING SYSTEM

SAIC reproduced all original source data and much of the secondary source data that was used in this project. The reproduced data was compiled, indexed, cross-referenced and organized into systemized data files for efficient ready reference and future analysis. Each item of information was placed in a folder and the folder labeled as the to the content. An index was developed which cross-references all the material in the folders.

The index is sorted in the following ways:

1. All material indexed by Unit
2. All material indexed by Engagement Name and Number
3. All material indexed by Date of occurrence
4. A miscellaneous index for all material that does not fit into the above categories.

There is an additional index (not included here) that sorts the material by folder number.

UNIT

1ST ARMORED DIVISION

FOLDER NUMBER

114

4TH INFANTRY DIVISION

FOLDER NUMBER

7

40

1ST INFANTRY DIVISION

FOLDER NUMBER

1

2

3

4

5

6

27

28TH INFANTRY DIVISION

FOLDER NUMBER

93

94

95

96

97

98

99

2ND INFANTRY DIVISION

FOLDER NUMBER

89

30TH INFANTRY DIVISION

FOLDER NUMBER

8

17

18

27

28

51

52

53

54

55

56

58

59

60

3RD INFANTRY DIVISION

FOLDER NUMBER

29

30

31

32

33

34

35

36

37

38

30th ID (cont')

61
62
74
75
76
77
78
79
80
81
113

35TH DIVISION

FOLDER NUMBER
82

51ST COMBAT ENGINEER BATTALION

FOLDER NUMBER
9
10

82ND AIRBORNE DIVISION

FOLDER NUMBER
11

94TH INFANTRY DIVISION

FOLDER NUMBER
57

101ST AIRBORNE DIVISION

FOLDER NUMBER
12
13
14
15

5TH TANK DESTROYER GROUP

FOLDER NUMBER
84

607TH TANK DESTROYER BATTALION

FOLDER NUMBER
19

609TH TANK DESTROYER BATTALION

FOLDER NUMBER
20
118

610TH TD BN

FOLDER NUMBER
21
85

612TH TD BN

FOLDER NUMBER
22

629TH TD BN

FOLDER NUMBER
70

630TH TD BN

FOLDER NUMBER
23

644TH TD BN

FOLDER NUMBER
24

7TH TD GROUP

FOLDER NUMBER
25

702ND TD BN

FOLDER NUMBER
115
116
117

821ST TD BN

FOLDER NUMBER
26

823D TD BN

FOLDER NUMBER
16
17
18
71
72
73
86
92

ENGAGEMENT

ENGAGEMENT 1 (SBEITLA, TUNISIA)

FOLDER NUMBER

48

ENGAGEMENT 2 (SBEITLA, TUNISIA)

FOLDER NUMBER

48

ENGAGEMENT 3 (EL GUETTAR, N. AFRICA)

FOLDER NUMBER

48

ENGAGEMENT 4 (DJEBEL EL GUESSA, N. AFRICA)

ENGAGEMENT 5 (ST. JEAN-DE-DAYE, FRANCE)

ENGAGEMENT 6 (ST. JEAN-DE-DAYE, FRANCE)

ENGAGEMENT 7 (NOTRE DAME-DE-CENILLY, FRANCE)

ENGAGEMENT 8 (NEAR NOTRE DAME-DE-CENILLY, FRANCE)

ENGAGEMENT 9 (NEAR ST. DENIS-LE-GAST, FRANCE)

ENGAGEMENT 10 (HILL 314, MORTAIN, FRANCE)

FOLDER NUMBER

8

16

51

52

53

54

55

56

57

58

59

60

61

62

64

65

67

68

81

86

92

100

Engagement 10 (cont')

101

102

103

104

105

106

107

108

109

113

124

ENGAGEMENT 11 (ABBAYE BLANCHE, FRANCE)

FOLDER NUMBER

8

51

52

53

54

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56

57

58

59

60

61

62

64

65

67

68

81

86

92

100

101

102

103

104

105

106

107

108

109

113

119

120

121

122

124

125

ENGAGEMENT 12 (ARNAVILLE, FRANCE)

ENGAGEMENT 13 (DIEULOUARD BRIDGEHEAD, FRANCE)

FOLDER NUMBER
85

ENGAGEMENT 14 (LUNEVILLE, FRANCE)

ENGAGEMENT 15 (SCHMIDT, FRANCE)

ENGAGEMENT 16 (KOMMERSCHIEDT, GE)

ENGAGEMENT 17 (DISTROFF, GERMANY)

ENGAGEMENT 18 (LUCHEBERG, GERMANY)

ENGAGEMENT 19 (MURRINGEN, BELGIUM)

ENGAGEMENT 20 (KRINKELTER WALD, BELGIUM)

FOLDER NUMBER
24

ENGAGEMENT 21 (ROCHERATH, BELGIUM)

FOLDER NUMBER
24

ENGAGEMENT 22 (DOM BUTGENBACH, BELGIUM)

FOLDER NUMBER

1
2
3
4
5
6

ENGAGEMENT 23 (HOTTON, BELGIUM)

FOLDER NUMBER

9
10

ENGAGEMENT 24 (STOUMONT, BELGIUM)

FOLDER NUMBER

17

ENGAGEMENT 25 (LONGCHAMPS, BELGIUM)

FOLDER NUMBER

14
15
20

ENGAGEMENT 26 (LONGCHAMPS, BELGIUM)

FOLDER NUMBER

14
15
20

ENGAGEMENT 27 (BUTZDORF AND TETTINGEN, GERMANY)

ENGAGEMENT 28 (MAISON ROUGE, FRANCE)

ENGAGEMENT 29 (BOLSAR, GERMANY)

ENGAGEMENT 30 (KIRCHBOREN, GERMANY)

ENGAGEMENT 31 (ST. BARTHELMY, FRANCE)

FOLDER NUMBER

8
16
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
67
68
81
86
87
88
90
91
92
100
101
102
103
104
105
106
107
108
109
113
119
120
124

ENGAGEMENT 32 (GELA, SICILY)

FOLDER NUMBER

11

ENGAGEMENT 33 (SALERNO, ITALY)

ENGAGEMENT 34 (ANZIO, ITALY)

FOLDER NUMBER

29

30

31

32

33

34

35

36

37

38

ENGAGEMENT 35 (ARNHEM)

ENGAGEMENT 36 (MANHAY CROSSROADS)

**ENGAGEMENT 37 (BARAQUE DE FRAITURE,
BELGIUM)**

ENGAGEMENT 38 (CLERVAUX)

ENGAGEMENT 39 (MARNACH, LUXEMBOURG)

ENGAGEMENT 40 (ROCHEFORT, BELGIUM)

ENGAGEMENT 41 (LE GLEIZE)

FOLDER NUMBER

28

ENGAGEMENT 42 (STAVELLOT, BELGIUM)

FOLDER NUMBER

17

28

ENGAGEMENT 43 (BATTLE OF FIVE POINTS)

ENGAGEMENT 44 (HOSINGEN, GERMANY)

FOLDER NUMBER

93

94

95

96

97

98

99

ENGAGEMENT 45 (BASTOGNE, FRANCE)

FOLDER NUMBER

12

13

20

**ENGAGEMENT 46 (HEINERSCHIED,
LUXEMBOURG)**

DATE

MAY 1942
FOLDER NUMBER
43

JULY 1943
FOLDER NUMBER
11

OCTOBER 1943
FOLDER NUMBER
29

NOVEMBER 1943
FOLDER NUMBER
29

JANUARY 1944
FOLDER NUMBER
30
31
32
33
38
48
115

FEBRUARY 1944
FOLDER NUMBER
34
38
115

MARCH 1944
FOLDER NUMBER
35
38
115

APRIL 1944
FOLDER NUMBER
38
115

MAY 1944
FOLDER NUMBER
36
37
38
115

JUNE 1944
FOLDER NUMBER
38
115
117

JULY 1944
FOLDER NUMBER
7
67
115
117

AUGUST 1944
FOLDER NUMBER
7
8
16
21
51
52
53
54
55
56
57
58
59
60
61
62
63
64
66
68
69
70
71
72
73
74
76
77
78
79
80
81
82
83
86
87
88

August 1944 (cont')

90
91
92
100
101
102
103
104
105
106
107
108
109
113
115
117
119
120
121
122
124
125

SEPTEMBER 1944
FOLDER NUMBER

7
19
21
27
40
65
85
115
117

OCTOBER 1944
FOLDER NUMBER

7
21
27
41
115
117

NOVEMBER 1944
FOLDER NUMBER

7
26
115
117

DECEMBER 1944
FOLDER NUMBER

1
2
3
4
5
6
7
9
10
12
13
17
21
22
24
25
28
39
93
94
95
96
97
98
99
115
117
118

JANUARY 1945
FOLDER NUMBER

7
12
13
14
15
18
20
23
110
116

FEBRUARY 1945
FOLDER NUMBER

7
42
116

MARCH 1945
FOLDER NUMBER —
7
116

APRIL 1945
FOLDER NUMBER
116

MAY 1945
FOLDER NUMBER
42
116

JUNE 1945
FOLDER NUMBER
116

JULY 1945
FOLDER NUMBER
116

AUGUST 1945
FOLDER NUMBER
116

SEPTEMBER 1945
FOLDER NUMBER
116

OCTOBER 1945
FOLDER NUMBER
116

NOVEMBER 1945
FOLDER NUMBER
116

DECEMBER 1945
FOLDER NUMBER
116

MAY 1948
FOLDER NUMBER
45

MISCELLANEOUS (USE KEY WORD SEARCH)

AACHEN

FOLDER NUMBER

27

41

ANTI-TANK COMPANY

FOLDER NUMBER

7

ANTI-TANK WEAPONS

FOLDER NUMBER

44

110

AMERICAN ARMY UNITS

FOLDER NUMBER

49

ARMORED SUPPORT

FOLDER NUMBER

45

AVRANCHES, COUNTERATTACK

FOLDER NUMBER

66

83

92

BATTLE OF THE BULGE

FOLDER NUMBER

89

BIBLIOGRAPHY

FOLDER NUMBER

47

49

50

DESTRUCTION, GERMAN ARMORED VEHICLES

FOLDER NUMBER

42

GERMAN INTERVIEW

FOLDER NUMBER

68

GERMAN MARK III TANKS

FOLDER NUMBER

43

LEAVENWORTH PAPERS

FOLDER NUMBER

50

NEWSLETTER

FOLDER NUMBER

46

OLD IRONSIDES

FOLDER NUMBER

114

SCHNEE EIFEL

FOLDER NUMBER

40

SIEGFRIED LINE

FOLDER NUMBER

27

40

ST. VITH

FOLDER NUMBER

39

TANK DESTROYER GROUP, 5TH

FOLDER NUMBER

84

TANK DESTROYERS, WWII

FOLDER NUMBER

47

110

111

112

123

TROIS PONTS

FOLDER NUMBER

28

GERMAN RECORDS

GERMAN 7TH ARMY
FOLDER NUMBER

69
87
88
90
91

SS PANZER DIVISION
FOLDER NUMBER

63
64

2ND PANZER DIVISION
FOLDER NUMBER

65
66
67
102
104

17TH SS-PANZERGRENADIER-DIVISION
FOLDER NUMBER

106
107

APPENDIX E
DETAILED EVALUATION OF ENGAGEMENTS

DETAILED EVALUATION OF ENGAGEMENTS

The literature search was focused towards identifying the feasibility of collecting the detailed data required for this project on the 46 engagements identified. The results of the literature search were quantified for each engagement in each of six data categories:

- b. Data Availability
- c. Determination of Weapon Effectiveness
- d. Level of Detail
- e. Ability to Isolate the Action
- f. Ability to Justify Estimates
- o Location of Sources

The methodology was described in Section 3 of Volume I, Technical Report. This appendix displays the quantitative results of the scoring part of the evaluation.

DATA AVAILABILITY	Possible score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	0-56	0.50	28
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	6
Meteorological data	2	Excellent data for individual weapon	40		
Time of day	2	Fair amount of data for indiv. weapon	20		
Light	2	Cannot determine by indiv. weapon	10		
Terrain	2	Cannot determine for any weapon	0		
Composition		LEVEL OF DATA DETAIL		0.10	4
US	1	Company/Platoon	40		
German	1	Battalion	35		
		Brigade/Regiment	25		
		Division	10		
Disposition		Army/Corps	5		
Defensive weapons	3	No details available	0		
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	4
US	3	Can isolate	40		
German	3	Isolate with Difficulty	30		
German Inf w/attack	3	Must Use Judgement	20		
US AT weapons	3	Cannot isolate	10		
German tanks	3	ABILITY TO JUSTIFY ESTIMATES		0.10	4
US tanks	3	No Estimation Needed	40		
		Easily Justifiable	20		
Tactics		Justify with Difficulty	10		
Arty bombardment	2	Cannot Estimate	0		
Attack maneuver	1	LOCATION OF SOURCE		0.05	1
Preparation of def site	1	Local Washington	20		
Attack warning	1	Carlisle	15		
Maximum effective ranges	2	Eastern Seaboard	10		
Air/artillery support	1	Other US	5		
Overwatch vs maneuver tks	1	Germany	2		
Logistics		Maximum Weighted Score			47
Ammunition supply	1				
Rounds fired by wpn type	2				
Results					
US casualties	3				
Enemy tanks lost	3				
Narrative	3				
Resource data					
Maps	2				
Total	56				

EXAMPLE SCORING SHEET -- PERFECT SCORE

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather	2	DATA AVAILABILITY	50	0.50	25
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	2	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	2	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon	40	0.10	4
German	1	Battalion			
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition	3	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons		Can Isolate	30	0.10	3
		Isolate with Difficulty			
Strength	3	Must Use Judgement			
US	3	Cannot Isolate			
German	3	ABILITY TO JUSTIFY ESTIMATES			
German Inf w/attack	3	No Estimation Needed	40	0.10	4
US AT weapons	3	Easily Justifiable			
German tanks	3	Justify with Difficulty			
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	2	Local Washington			
Attack maneuver	1	Carlisle	20	0.05	1
Preparation of def site	1	Eastern Seaboard			
Attack warning	1	Other US			
Maximum effective ranges	2	Germany			
Air/artillery support	1	Total Weighted Score			40
Overwatch vs maneuver tks	0				
Logistics					
Ammunition supply	0				
Rounds fired by wpn type	2				
Results					
US casualties	3				
Enemy tanks lost	3				
Narrative	1				
Resource data					
Maps	2				
Total	50				

Dom Butgenbach (Engagement 22)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	48	0.50	24
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	3
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20		
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	4
US	1	Company/Platoon	40		
German	1	Battalion			
Disposition		Brigade/Regiment			
Defensive weapons	2	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	3
US	3	Can Isolate			
German	2	Isolate with Difficulty	30		
German Inf w/attack	2	Must Use Judgement			
US AT weapons	3	Cannot Isolate			
German tanks	3	ABILITY TO JUSTIFY ESTIMATES	40	0.10	4
US tanks	3	No Estimation Needed			
		Easily Justifiable			
Tactics		Justify with Difficulty			
Arty bombardment	2	Cannot Estimate			
Attack maneuver	1	LOCATION OF SOURCE		0.05	1
Preparation of def site	1	Local Washington	20		
Attack warning	1	Carlisle			
Maximum effective ranges	2	Eastern Seaboard			
Air/artillery support	1	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			39
Ammunition supply	1				
Rounds fired by wpn type	2				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	3				
Resource data					
Maps	2				
Total	48				

St. Barthelemy (Engagement 31)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	48	0.50	24
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	3
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20		
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon	40	0.10	4
German	1	Battalion			
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition	2	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons		Can Isolate		0.10	3
Strength		Isolate with Difficulty	30		
US	3	Must Use Judgement			
German	2	Cannot Isolate			
German Inf w/attack	2				
US AT weapons	3	ABILITY TO JUSTIFY ESTIMATES			
German tanks	3	No Estimation Needed	40	0.10	4
US tanks	3	Easily Justifiable			
		Justify with Difficulty			
		Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	2	Local Washington		0.05	1
Attack maneuver	1	Carlisle	20		
Preparation of def site	1	Eastern Seaboard			
Attack warning	2	Other US			
Maximum effective ranges	1	Germany			
Air/arty support	0				
Overwatch vs maneuver tks					
Logistics					
Ammunition supply	1	Total Weighted Score			39
Rounds fired by wpn type	2				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	3				
Resource data					
Maps	2				
Total	48				

Abbaye Blanche (Engagement 11)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	46	0.50	23
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	3.5
US	1	Company/Platoon			
German	1	Battalion	35		
Disposition		Brigade/Regiment			
Defensive weapons	2	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT	40	0.10	4
US	3	Can Isolate			
German	2	Isolate with Difficulty			
German Inf w/attack	2	Must Use Judgement			
US AT weapons	3	Cannot Isolate			
German tanks	2	ABILITY TO JUSTIFY ESTIMATES	40	0.10	4
US tanks	3	No Estimation Needed			
Tactics		Easily Justifiable			
Arty bombardment	1	Justify with Difficulty			
Attack maneuver	1	Cannot Estimate			
Preparation of def site	1	LOCATION OF SOURCE	20	0.05	1
Attack warning	1	Local Washington			
Maximum effective ranges	2	Carlisle			
Air/artillery support	1	Eastern Seaboard			
Overwatch vs maneuver tks	0	Other US			
Logistics		Germany			
Ammunition supply	1	Total Weighted Score			38.5
Rounds fired by wpn type	2				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	3				
Resource data					
Maps	2				
Total	46				

Krinkelter Wald, Belgium (Engagement 20)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	47	0.50	23.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	3
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20		
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	3.5
US	1	Company/Platoon			
German	1	Battalion	35		
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	3
Defensive weapons	2	Can Isolate			
		Isolate with Difficulty	30		
Strength	3	Must Use Judgement			
US	2	Cannot Isolate			
German	2	ABILITY TO JUSTIFY ESTIMATES		0.10	4
German Inf w/attack	3	No Estimation Needed	40		
US AT weapons	2	Easily Justifiable			
German tanks	3	Justify with Difficulty			
US tanks	2	Cannot Estimate			
		LOCATION OF SOURCE		0.05	1
Tactics	2	Local Washington			
Arty bombardment	1	Carlisle	20		
Attack maneuver	1	Eastern Seaboard			
Preparation of def site	1	Other US			
Attack warning	2	Germany			
Maximum effective ranges	1				
Air/artillery support	0				
Overwatch vs maneuver tks					
Logistics					
Ammunition supply	1	Total Weighted Score			38
Rounds fired by wpn type	1				
Results					
US casualties	3				
Enemy tanks lost	3				
Narrative	3				
Resource data					
Maps	2				
Total	47				

Rocherath, Belgium (Engagement 21)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	47	0.50	23.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	2	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	2	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	2.5
German	1	Battalion			
		Brigade/Regiment	25		
		Division			
		Army/Corps			
Disposition	2	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons		Can Isolate	40	0.10	4
Strength		Isolate with Difficulty			
US	3	Must Use Judgement			
German	2	Cannot Isolate			
German Inf w/attack	2	ABILITY TO JUSTIFY ESTIMATES			
US AT weapons	3	No Estimation Needed	20	0.10	2
German tanks	2	Easily Justifiable			
US tanks	3	Justify with Difficulty			
		Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	2	Local Washington	20	0.05	1
Attack maneuver	1	Carlisle			
Preparation of def site	1	Eastern Seaboard			
Attack warning	1	Other US			
Maximum effective ranges	1	Germany			
Air/arty support	1				
Overwatch vs maneuver tks	0				
Logistics		Total Weighted Score			36
Ammunition supply	1				
Rounds fired by wpn type	1				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	2				
Resource data					
Maps	2				
Total	47				

La Maison Rouge, France (Engagement 28)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	46	0.50	23
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	3
Meteorological data	1	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20		
Light	2	Cannot determine by indiv. weapon			
Terrain	2	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	4
US	1	Company/Platoon	40		
German	1	Battalion			
Disposition		Brigade/Regiment			
Defensive weapons	2	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	3
US	3	Can Isolate	30		
German	2	Isolate with Difficulty			
German Inf w/attack	2	Must Use Judgement			
US AT weapons	3	Cannot Isolate			
German tanks	2	ABILITY TO JUSTIFY ESTIMATES		0.10	2
US tanks	3	No Estimation Needed	20		
		Easily Justifiable			
Tactics		Justify with Difficulty			
Arty bombardment	2	Cannot Estimate			
Attack maneuver	1	LOCATION OF SOURCE		0.05	1
Preparation of def site	1	Local Washington	20		
Attack warning	1	Carlisle			
Maximum effective ranges	1	Eastern Seaboard			
Air/arty support	1	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			36
Ammunition supply	1				
Rounds fired by wpn type	1				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	2				
Resource data					
Maps	2				
Total	46				

Hill 314 (Mortain) (Engagement 10)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	43	0.50	21.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	1	Excellent data for individual weapon		0.15	1.5
Time of day	2	Fair amount of data for indiv. weapon	10		
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon	40	0.10	4
German	1	Battalion			
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons	1	Can isolate	40	0.10	4
		Isolate with Difficulty			
Strength		Must Use Judgement			
US	3	Cannot isolate			
German	2	ABILITY TO JUSTIFY ESTIMATES			
German Inf w/attack	2	No Estimation Needed	40	0.10	4
US AT weapons	3	Easily Justifiable			
German tanks	2	Justify with Difficulty			
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	1	Local Washington	20	0.05	1
Attack maneuver	1	Carlisle			
Preparation of def site	1	Eastern Seaboard			
Attack warning	1	Other US			
Maximum effective ranges	1	Germany			
Air/arty support	1				
Overwatch vs maneuver tks	0				
Logistics		Total Weighted Score			36
Ammunition supply	1				
Rounds fired by wpn type	1				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	2				
Resource data					
Maps	2				
Total	43				

Stoumont, Belgium (Engagement 24)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	44	0.50	22
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	3
Meteorological data	1	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20		
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	3.5
US	1	Company/Platoon	35		
German	1	Battalion			
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition	2	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	3
Defensive weapons		Can Isolate			
		Isolate with Difficulty	30		
Strength	3	Must Use Judgement			
US	2	Cannot Isolate			
German	2	ABILITY TO JUSTIFY ESTIMATES		0.10	2
German Inf w/attack	3	No Estimation Needed			
US AT weapons	2	Easily Justifiable			
German tanks	2	Justify with Difficulty	20		
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE		0.05	1
Arty bombardment	1	Local Washington			
Attack maneuver	1	Carlisle	20		
Preparation of def site	1	Eastern Seaboard			
Attack warning	1	Other US			
Maximum effective ranges	1	Germany			
Air/artillery support	0				
Overwatch vs maneuver tks	0				
Logistics		Total Weighted Score			34.5
Ammunition supply	1				
Rounds fired by wpn type	1				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	2				
Resource data					
Maps	2				
Total	44				

Kommerscheidt, Germany (Engagement 16)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather	2	DATA AVAILABILITY	44	0.50	22
Obstacles	1	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	2	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	3.5
German	1	Battalion	35		
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition	2	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons		Can Isolate		0.10	3
		Isolate with Difficulty	30		
Strength	3	Must Use Judgement			
US	2	Cannot Isolate			
German	2	ABILITY TO JUSTIFY ESTIMATES			
German Inf w/attack	3	No Estimation Needed		0.10	2
US AT weapons	2	Easily Justifiable	20		
German tanks	3	Justify with Difficulty			
US tanks		Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	1	Local Washington		0.05	1
Attack maneuver	1	Carlisle	20		
Preparation of def site	1	Eastern Seaboard			
Attack warning	1	Other US			
Maximum effective ranges	1	Germany			
Air/artillery support	1	Total Weighted Score			34.5
Overwatch vs maneuver tks	0				
Logistics					
Ammunition supply	1				
Rounds fired by wpn type	1				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	2				
Resource data					
Maps	2				
Total	44				

Hosingen, Germany (Engagement 44)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	43	0.50	21.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	1	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	3.5
US	1	Company/Platoon			
German	1	Battalion	35		
Disposition		Brigade/Regiment			
Defensive weapons	2	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	3
US	3	Can Isolate			
German	2	Isolate with Difficulty	30		
German Inf w/attack	2	Must Use Judgement			
US AT weapons	3	Cannot Isolate			
German tanks	2	ABILITY TO JUSTIFY ESTIMATES		0.10	2
US tanks	3	No Estimation Needed	20		
Tactics		Easily Justifiable			
Arty bombardment	1	Justify with Difficulty			
Attack maneuver	1	Cannot Estimate			
Preparation of def site	1	LOCATION OF SOURCE		0.05	1
Attack warning	1	Local Washington	20		
Maximum effective ranges	1	Carlisle			
Air/arty support	1	Eastern Seaboard			
Overwatch vs maneuver tks	0	Other US			
Logistics		Germany			
Ammunition supply	1	Total Weighted Score			34
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	2				
Resource data					
Maps	2				
Total	43				

Bastogne, France (Engagement 45)

DATA AVAILABILITY		Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather			DATA AVAILABILITY	41	0.50	20.5
Obstacles		2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	3
Meteorological data		1	Excellent data for individual weapon			
Time of day		2	Fair amount of data for indiv. weapon	20		
Light		2	Cannot determine by indiv. weapon			
Terrain		1	Cannot determine for any weapon			
Composition			LEVEL OF DATA DETAIL		0.10	3.5
US		1	Company/Platoon	35		
German		1	Battalion			
			Brigade/Regiment			
			Division			
			Army/Corps			
Disposition		2	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	4
Defensive weapons			Can Isolate	40		
			Isolate with Difficulty			
Strength		3	Must Use Judgement			
US		2	Cannot Isolate			
German		2	ABILITY TO JUSTIFY ESTIMATES		0.10	2
German Inf w/attack		3	No Estimation Needed	20		
US AT weapons		2	Easily Justifiable			
German tanks		3	Justify with Difficulty			
US tanks			Cannot Estimate			
Tactics			LOCATION OF SOURCE		0.05	1
Arty bombardment		1	Local Washington	20		
Attack maneuver		1	Carlisle			
Preparation of def site		0	Eastern Seaboard			
Attack warning		1	Other US			
Maximum effective ranges		1	Germany			
Air/arty support		0				
Overwatch vs maneuver tks		0				
Logistics			Total Weighted Score			34
Ammunition supply		1				
Rounds fired by wpn type		0				
Results						
US casualties		3				
Enemy tanks lost		2				
Narrative		2				
Resource data						
Maps		2				
Total		41				

Heinerscheid, Luxembourg (Engagement 46)

DATA AVAILABILITY		Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather			DATA AVAILABILITY	39	0.50	19.5
Obstacles		2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data		1	Excellent data for individual weapon			
Time of day		2	Fair amount of data for indiv. weapon	20	0.15	3
Light		2	Cannot determine by indiv. weapon			
Terrain		1	Cannot determine for any weapon			
Composition			LEVEL OF DATA DETAIL		0.10	3.5
US		1	Company/Platoon			
German		1	Battalion	35		
Disposition			Brigade/Regiment			
Defensive weapons		2	Division			
			Army/Corps			
Strength			ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	3
US		3	Can Isolate			
German		2	Isolate with Difficulty	30		
German Inf w/attack		2	Must Use Judgement			
US AT weapons		3	Cannot Isolate			
German tanks		2	ABILITY TO JUSTIFY ESTIMATES		0.10	4
US tanks		3	No Estimation Needed	40		
Tactics			Easily Justifiable			
Arty bombardment		1	Justify with Difficulty			
Attack maneuver		1	Cannot Estimate			
Preparation of def site		0	LOCATION OF SOURCE		0.05	1
Attack warning		1	Local Washington	20		
Maximum effective ranges		1	Carlisle			
Air/arty support		0	Eastern Seaboard			
Overwatch vs maneuver tks		0	Other US			
Logistics			Germany			
Ammunition supply		1	Total Weighted Score			34
Rounds fired by wpn type		0				
Results						
US casualties		3				
Enemy tanks lost		2				
Narrative		1				
Resource data						
Maps		1				
Total		39				

Baraque de Fraiture, Belgium (Engagement 37)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	37	0.50	18.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	1	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	3.5
German	1	Battalion	35		
Disposition		Brigade/Regiment			
Defensive weapons	2	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
US	3	Can Isolate		0.10	3
German	1	Isolate with Difficulty	30		
German Inf w/attack	1	Must Use Judgement			
US AT weapons	3	Cannot Isolate			
German tanks	2	ABILITY TO JUSTIFY ESTIMATES			
US tanks	3	No Estimation Needed	40	0.10	4
		Easily Justifiable			
Tactics		Justify with Difficulty			
Arty bombardment	1	Cannot Estimate			
Attack maneuver	1	LOCATION OF SOURCE			
Preparation of def site	0	Local Washington		0.05	1
Attack warning	1	Carlisle	20		
Maximum effective ranges	1	Eastern Seaboard			
Air/artillery support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			-----
Ammunition supply	1				33
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	1				
Total	-----				
	37				

Stavelot, Belgium (Engagement 42)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	39	0.50	19.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	3
Meteorological data	1	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20		
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	3.5
US	1	Company/Platoon	35		
German	1	Battalion			
Disposition		Brigade/Regiment			
Defensive weapons	2	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT	40	0.10	4
US	3	Can isolate			
German	1	Isolate with Difficulty			
German Inf w/attack	1	Must Use Judgement			
US AT weapons	3	Cannot isolate			
German tanks	2	ABILITY TO JUSTIFY ESTIMATES		0.10	2
US tanks	3	No Estimation Needed	20		
Tactics		Easily Justifiable			
Arty bombardment	1	Justify with Difficulty			
Attack maneuver	1	Cannot Estimate			
Preparation of def site	0	LOCATION OF SOURCE	20	0.05	1
Attack warning	1	Local Washington			
Maximum effective ranges	1	Carlisle			
Air/arty support	0	Eastern Seaboard			
Overwatch vs maneuver tks	0	Other US			
Logistics		Germany			
Ammunition supply	1	Total Weighted Score			33
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	2				
Resource data					
Maps	2				
Total	39				

Manhay Crossroads, Belgium (Engagement 36)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	41	0.50	20.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	3
Meteorological data	1	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20		
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	3.5
US	1	Company/Platoon	35		
German	1	Battalion			
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition	2	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	3
Defensive weapons		Can Isolate			
		Isolate with Difficulty	30		
Strength	3	Must Use Judgement			
US	2	Cannot Isolate			
German	1	ABILITY TO JUSTIFY ESTIMATES		0.10	2
German Inf w/attack	3	No Estimation Needed	20		
US AT weapons	2	Easily Justifiable			
German tanks	3	Justify with Difficulty			
US tanks		Cannot Estimate			
Tactics		LOCATION OF SOURCE		0.05	1
Arty bombardment	1	Local Washington	20		
Attack maneuver	1	Carlisle			
Preparation of def site	1	Eastern Seaboard			
Attack warning	1	Other US			
Maximum effective ranges	0	Germany			
Air/arty support	0	Total Weighted Score			33
Overwatch vs maneuver tks	0				
Logistics					
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	2				
Resource data					
Maps	2				
Total	41				

Schmidt, France (Engagement 15)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	38	0.50	19
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	1	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	3.5
German	1	Battalion	35		
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition	1	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons		Can isolate		0.10	3
		Isolate with Difficulty	30		
Strength	3	Must Use Judgement			
US	2	Cannot isolate			
German	1	ABILITY TO JUSTIFY ESTIMATES			
German Inf w/attack	2	No Estimation Needed		0.10	2
US AT weapons	2	Easily Justifiable	20		
German tanks	3	Justify with Difficulty			
US tanks		Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	1	Local Washington		0.05	1
Attack maneuver	1	Carlisle	20		
Preparation of def site	0	Eastern Seaboard			
Attack warning	1	Other US			
Maximum effective ranges	0	Germany			
Air/arty support	0				
Overwatch vs maneuver tks	0				
Logistics		Total Weighted Score			-----
Ammunition supply	1				31.5
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	2				
Resource data					
Maps	2				
Total	-----				
	38				

Battle of Five Points (Engagement 43)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather	2	DATA AVAILABILITY	35	0.50	17.5
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	2	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	3.5
German	1	Battalion	35		
Disposition		Brigade/Regiment			
Defensive weapons	1	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
US	3	Can Isolate		0.10	2
German	2	Isolate with Difficulty			
German Inf w/attack	1	Must Use Judgement	20		
US AT weapons	2	Cannot Isolate			
German tanks	2	ABILITY TO JUSTIFY ESTIMATES			
US tanks	3	No Estimation Needed	20	0.10	2
		Easily Justifiable			
Tactics		Justify with Difficulty			
Arty bombardment	1	Cannot Estimate			
Attack maneuver	1	LOCATION OF SOURCE			
Preparation of def site	1	Local Washington	20	0.05	1
Attack warning	0	Carlisle			
Maximum effective ranges	1	Eastern Seaboard			
Air/arty support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			----- 29
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	1				
Total	----- 35				

Longchamps, Belgium (Engagement 25)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	35	0.50	17.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	0	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon	35	0.10	3.5
German	1	Battalion			
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons	1	Can Isolate			
		Isolate with Difficulty			
Strength		Must Use Judgement	20	0.10	2
US	3	Cannot Isolate			
German	2	ABILITY TO JUSTIFY ESTIMATES			
German Inf w/attack	1	No Estimation Needed			
US AT weapons	2	Easily Justifiable	20	0.10	2
German tanks	2	Justify with Difficulty			
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	1	Local Washington			
Attack maneuver	1	Carlisle	20	0.05	1
Preparation of def site	1	Eastern Seaboard			
Attack warning	0	Other US			
Maximum effective ranges	1	Germany			
Air/arty support	0	Total Weighted Score			29
Overwatch vs maneuver tks	0				
Logistics					
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	1				
Total	35				

Longchamps, Belgium (Engagement 26)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	37	0.50	18.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20	0.15	3
Light	2	Cannot determine by indiv. weapon			
Terrain	1	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	3.5
German	1	Battalion	35		
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons	1	Can Isolate		0.10	2
		Isolate with Difficulty			
Strength		Must Use Judgement	20		
US	3	Cannot Isolate			
German	2	ABILITY TO JUSTIFY ESTIMATES			
German Inf w/attack	1	No Estimation Needed		0.10	1
US AT weapons	2	Easily Justifiable			
German tanks	1	Justify with Difficulty	10		
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	1	Local Washington		0.05	1
Attack maneuver	1	Carlisle			
Preparation of def site	1	Eastern Seaboard	20		
Attack warning	1	Other US			
Maximum effective ranges	1	Germany			
Air/arty support	1	Total Weighted Score			29
Overwatch vs maneuver tks	0				
Logistics					
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	2				
Total	37				

Butzendorf and Tettingen (Engagement 27)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	35	0.50	17.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	3
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	20		
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	2.5
US	1	Company/Platoon			
German	1	Battalion	25		
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	2
Defensive weapons	1	Can isolate			
		Isolate with Difficulty			
Strength	3	Must Use Judgement	20		
US	2	Cannot isolate			
German	1	ABILITY TO JUSTIFY ESTIMATES		0.10	1
German Inf w/attack	2	No Estimation Needed			
US AT weapons	1	Easily Justifiable			
German tanks	1	Justify with Difficulty	10		
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE		0.05	1
Arty bombardment	1	Local Washington			
Attack maneuver	1	Carlisle	20		
Preparation of def site	1	Eastern Seaboard			
Attack warning	0	Other US			
Maximum effective ranges	1	Germany			
Air/artillery support	1				
Overwatch vs maneuver tks	0				
Logistics		Total Weighted Score			27
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	2				
Total	35				

Anzio, Italy (Engagement 34)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	34	0.50	17
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	1.5
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	10		
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	2.5
US	1	Company/Platoon			
German	1	Battalion	25		
Disposition		Brigade/Regiment			
Defensive weapons	1	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT	40	0.10	4
US	3	Can Isolate			
German	1	Isolate with Difficulty			
German Inf w/attack	1	Must Use Judgement			
US AT weapons	2	Cannot Isolate			
German tanks	1	ABILITY TO JUSTIFY ESTIMATES		0.10	1
US tanks	3	No Estimation Needed			
Tactics		Easily Justifiable	10		
Arty bombardment	1	Justify with Difficulty			
Attack maneuver	1	Cannot Estimate			
Preparation of def site	1	LOCATION OF SOURCE	20	0.05	1
Attack warning	0	Local Washington			
Maximum effective ranges	1	Carlisle			
Air/artillery support	1	Eastern Seaboard			
Overwatch vs maneuver tks	0	Other US			
Logistics		Germany			
Ammunition supply	1	Total Weighted Score			27
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	2				
Total	34				

Annville, France (Engagement 12)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	32	0.50	16
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon		0.15	1.5
Light	2	Cannot determine by indiv. weapon	10		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	2.5
German	1	Battalion			
		Brigade/Regiment	25		
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons	1	Can Isolate	40	0.10	4
		Isolate with Difficulty			
Strength		Must Use Judgement			
US	3	Cannot Isolate			
German	1	ABILITY TO JUSTIFY ESTIMATES			
German Inf w/attack	1	No Estimation Needed		0.10	1
US AT weapons	2	Easily Justifiable			
German tanks	1	Justify with Difficulty	10		
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	0	Local Washington		0.05	1
Attack maneuver	1	Carlisle			
Preparation of def site	1	Eastern Seaboard	20		
Attack warning	0	Other US			
Maximum effective ranges	1	Germany			
Air/arty support	1	Total Weighted Score			26
Overwatch vs maneuver tks	0				
Logistics					
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	1				
Total	32				

Notre Dame-de-Cenilly (Engagement 7)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather	2	DATA AVAILABILITY	32	0.50	16
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	10	0.15	1.5
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	2.5
German	1	Battalion	25		
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition	1	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT	40	0.10	4
Defensive weapons		Can Isolate			
		Isolate with Difficulty			
		Must Use Judgement			
		Cannot Isolate			
Strength	3	ABILITY TO JUSTIFY ESTIMATES			
US	1	No Estimation Needed			
German	1	Easily Justifiable	10	0.10	1
German Inf w/attack	1	Justify with Difficulty			
US AT weapons	2	Cannot Estimate			
German tanks	1	LOCATION OF SOURCE	20	0.05	1
US tanks	3	Local Washington			
		Carlisle			
		Eastern Seaboard			
		Other US			
		Germany			
Tactics		Total Weighted Score			26
Arty bombardment	0				
Attack maneuver	1				
Preparation of def site	1				
Attack warning	0				
Maximum effective ranges	1				
Air/arty support	1				
Overwatch vs maneuver tks	0				
Logistics					
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	1				
Total	32				

Near #7 (Engagement 8)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	32	0.50	16
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	1.5
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	10		
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	2.5
US	1	Company/Platoon			
German	1	Battalion	25		
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	3
Defensive weapons	1	Can Isolate			
		Isolate with Difficulty	30		
Strength	3	Must Use Judgement			
US	1	Cannot Isolate			
German	1	ABILITY TO JUSTIFY ESTIMATES		0.10	1
German Inf w/attack	1	No Estimation Needed			
US AT weapons	2	Easily Justifiable			
German tanks	1	Justify with Difficulty	10		
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE		0.05	1
Arty bombardment	0	Local Washington			
Attack maneuver	1	Carlisle	20		
Preparation of def site	1	Eastern Seaboard			
Attack warning	0	Other US			
Maximum effective ranges	1	Germany			
Air/arty support	1				
Overwatch vs maneuver tks	0				
Logistics		Total Weighted Score			25
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	1				
Total	32				

Salerno, Italy (Engagement 33)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	31	0.50	15.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	10	0.15	1.5
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	1
German	1	Battalion			
		Brigade/Regiment	10		
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Defensive weapons	1	Can Isolate		0.10	2
		Isolate with Difficulty			
Strength		Must Use Judgement	20		
US	3	Cannot Isolate			
German	1	ABILITY TO JUSTIFY ESTIMATES			
German Inf w/attack	1	No Estimation Needed			
US AT weapons	2	Easily Justifiable			
German tanks	1	Justify with Difficulty	10	0.10	1
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE			
Arty bombardment	0	Local Washington			
Attack maneuver	1	Carlisle			
Preparation of def site	0	Eastern Seaboard	20	0.05	1
Attack warning	0	Other US			
Maximum effective ranges	1	Germany			
Air/arty support	1				
Overwatch vs maneuver tks	0				
Logistics		Total Weighted Score			22
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	1				
Total	31				

Bolsar, Germany (Engagement 29)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	31	0.50	15.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	1.5
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	10		
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	1
US	1	Company/Platoon			
German	1	Battalion			
Disposition		Brigade/Regiment	10		
Defensive weapons	1	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	2
US	3	Can Isolate			
German	1	Isolate with Difficulty	20		
German Inf w/attack	1	Must Use Judgement			
US AT weapons	2	Cannot Isolate			
German tanks	1	ABILITY TO JUSTIFY ESTIMATES		0.10	1
US tanks	3	No Estimation Needed	10		
Tactics		Easily Justifiable			
Arty bombardment	0	Justify with Difficulty			
Attack maneuver	1	Cannot Estimate			
Preparation of def site	0	LOCATION OF SOURCE	20	0.05	1
Attack warning	0	Local Washington			
Maximum effective ranges	1	Carlisle			
Air/arty support	1	Eastern Seaboard			
Overwatch vs maneuver tks	0	Other US			
Logistics		Germany			
Ammunition supply	1	Total Weighted Score			22
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	2				
Narrative	1				
Resource data					
Maps	1				
Total	31				

Le Gleize (Engagement 41)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	29	0.50	14.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon		0.15	1.5
Light	2	Cannot determine by indiv. weapon	10		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	1
German	1	Battalion			
		Brigade/Regiment			
Disposition		Division	10		
Defensive weapons	1	Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
US	3	Can Isolate		0.10	2
German	1	Isolate with Difficulty			
German Inf w/attack	1	Must Use Judgement	20		
US AT weapons	2	Cannot Isolate			
German tanks	1	ABILITY TO JUSTIFY ESTIMATES			
US tanks	3	No Estimation Needed		0.10	1
		Easily Justifiable			
Tactics		Justify with Difficulty	10		
Arty bombardment	0	Cannot Estimate			
Attack maneuver	1	LOCATION OF SOURCE			
Preparation of def site	0	Local Washington		0.05	1
Attack warning	0	Carlisle	20		
Maximum effective ranges	1	Eastern Seaboard			
Air/arty support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			-----
Ammunition supply	1				21
Rounds fired by wpn type	0				
Results					
US casualties	3				
Enemy tanks lost	1				
Narrative	1				
Resource data					
Maps	1				
Total	-----				
	29				

Luneville, France (Engagement 14)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	27	0.50	13.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	1.5
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	10		
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	1
US	1	Company/Platoon			
German	1	Battalion			
		Brigade/Regiment	10		
		Division			
		Army/Corps			
Disposition	1	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	2
Defensive weapons		Can Isolate			
		Isolate with Difficulty	20		
Strength	3	Must Use Judgement			
US	1	Cannot Isolate			
German	1	ABILITY TO JUSTIFY ESTIMATES		0.10	1
German Inf w/attack	2	No Estimation Needed			
US AT weapons	1	Easily Justifiable	10		
German tanks	1	Justify with Difficulty			
US tanks	3	Cannot Estimate			
Tactics		LOCATION OF SOURCE		0.05	1
Arty bombardment	0	Local Washington	20		
Attack maneuver	1	Carlisle			
Preparation of def site	0	Eastern Seaboard			
Attack warning	0	Other US			
Maximum effective ranges	0	Germany			
Air/arty support	0	Total Weighted Score			20
Overwatch vs maneuver tks	0				
Logistics					
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	2				
Enemy tanks lost	1				
Narrative	1				
Resource data					
Maps	1				
Total	27				

Dieulouard Bridgehead (Engagement 13)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	25	0.50	12.5
Obstacles	2	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	10	0.15	1.5
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	1
German	0	Battalion			
Disposition		Brigade/Regiment	10		
Defensive weapons	1	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
US	2	Can Isolate		0.10	2
German	1	Isolate with Difficulty			
German Inf w/attack	1	Must Use Judgement	20		
US AT weapons	2	Cannot Isolate			
German tanks	1	ABILITY TO JUSTIFY ESTIMATES			
US tanks	3	No Estimation Needed		0.10	1
		Easily Justifiable			
Tactics		Justify with Difficulty	10		
Arty bombardment	0	Cannot Estimate			
Attack maneuver	1	LOCATION OF SOURCE			
Preparation of def site	0	Local Washington		0.05	1
Attack warning	0	Carlisle	20		
Maximum effective ranges	0	Eastern Seaboard			
Air/artillery support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			----- 19
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	2				
Enemy tanks lost	1				
Narrative	1				
Resource data					
Maps	1				
Total	----- 25				

Near St. Denis-le-Gast (Engagement 9)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	25	0.50	12.5
Obstacles	1	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon		0.15	1.5
Light	2	Cannot determine by indiv. weapon	10		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	1
German	0	Battalion			
		Brigade/Regiment			
Disposition		Division	10		
Defensive weapons	1	Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
US	2	Can Isolate		0.10	1
German	1	Isolate with Difficulty			
German Inf w/attack	1	Must Use Judgement			
US AT weapons	2	Cannot Isolate	10		
German tanks	1	ABILITY TO JUSTIFY ESTIMATES			
US tanks	3	No Estimation Needed		0.10	1
		Easily Justifiable			
Tactics		Justify with Difficulty	10		
Arty bombardment	0	Cannot Estimate			
Attack maneuver	1	LOCATION OF SOURCE			
Preparation of def site	0	Local Washington		0.05	1
Attack warning	1	Carlisle			
Maximum effective ranges	0	Eastern Seaboard	20		
Air/arty support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			----- 18
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	2				
Enemy tanks lost	1				
Narrative	1				
Resource data					
Maps	1				
Total	----- 25				

Distroff, Germany (Engagement 17)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	21	0.50	10.5
Obstacles	1	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	1.5
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon	10		
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	1
US	1	Company/Platoon			
German	0	Battalion			
		Brigade/Regiment	10		
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	1
Defensive weapons	1	Can Isolate			
		Isolate with Difficulty			
Strength	2	Must Use Judgement	10		
US	1	Cannot Isolate			
German	1	ABILITY TO JUSTIFY ESTIMATES		0.10	1
German Inf w/attack	2	No Estimation Needed			
US AT weapons	0	Easily Justifiable			
German tanks	2	Justify with Difficulty	10		
US tanks	2	Cannot Estimate			
Tactics		LOCATION OF SOURCE		0.05	1
Arty bombardment	0	Local Washington			
Attack maneuver	1	Carlisle	20		
Preparation of def site	0	Eastern Seaboard			
Attack warning	0	Other US			
Maximum effective ranges	0	Germany			
Air/arty support	0				
Overwatch vs maneuver tks	0				
Logistics		Total Weighted Score			----- 16
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	2				
Enemy tanks lost	1				
Narrative	1				
Resource data					
Maps	0				
Total	----- 21				

Lucherberg, Germany (Engagement 18)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	21	0.50	10.5
Obstacles	1	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon		0.15	1.5
Time of day	2	Fair amount of data for indiv. weapon			
Light	2	Cannot determine by indiv. weapon	10		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	1
US	1	Company/Platoon			
German	0	Battalion			
		Brigade/Regiment	10		
		Division			
		Army/Corps			
Disposition	1	ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	1
Defensive weapons		Can Isolate			
		Isolate with Difficulty			
Strength	2	Must Use Judgement			
US	1	Cannot Isolate	10		
German	1	ABILITY TO JUSTIFY ESTIMATES		0.10	1
German Inf w/attack	1	No Estimation Needed			
US AT weapons	2	Easily Justifiable			
German tanks	0	Justify with Difficulty			
US tanks	2	Cannot Estimate	10		
Tactics		LOCATION OF SOURCE		0.05	1
Arty bombardment	0	Local Washington			
Attack maneuver	1	Carlisle			
Preparation of def site	0	Eastern Seaboard	20		
Attack warning	0	Other US			
Maximum effective ranges	0	Germany			
Air/artillery support	0				
Overwatch vs maneuver tks	0				
Logistics		Total Weighted Score			----- 16
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	2				
Enemy tanks lost	1				
Narrative	1				
Resource data					
Maps	0				
Total	21				

Kirchboren, Germany (Engagement 30)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather	0	DATA AVAILABILITY	17	0.50	8.5
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon		0.15	0
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon	0		
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	1
German	0	Battalion			
Disposition		Brigade/Regiment	10		
Defensive weapons	1	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
US	2	Can Isolate		0.10	1
German	0	Isolate with Difficulty			
German Inf w/attack	0	Must Use Judgement	10		
US AT weapons	2	Cannot Isolate			
German tanks	0	ABILITY TO JUSTIFY ESTIMATES			
US tanks	2	No Estimation Needed		0.10	1
		Easily Justifiable			
Tactics		Justify with Difficulty	10		
Arty bombardment	0	Cannot Estimate			
Attack maneuver	1	LOCATION OF SOURCE			
Preparation of def site	0	Local Washington		0.05	0.5
Attack warning	0	Carlisle			
Maximum effective ranges	0	Eastern Seaboard	10		
Air/arty support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			-----
Ammunition supply	1				12
Rounds fired by wpn type	0				
Results					
US casualties	2				
Enemy tanks lost	0				
Narrative	1				
Resource data					
Maps	0				
Total	----- 17				

El Guettar, N. Africa (Engagement 3)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather	1	DATA AVAILABILITY	13	0.50	6.5
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon			
Light	2	Cannot determine by indiv. weapon	0	0.15	0
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	1
German	0	Battalion			
Disposition		Brigade/Regiment	10		
Defensive weapons	0	Division			
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
US	1	Can Isolate		0.10	2
German	1	Isolate with Difficulty			
German Inf w/attack	0	Must Use Judgement	20		
US AT weapons	1	Cannot Isolate			
German tanks	0	ABILITY TO JUSTIFY ESTIMATES			
US tanks	1	No Estimation Needed		0.10	0
		Easily Justifiable			
Tactics		Justify with Difficulty	0		
Arty bombardment	0	Cannot Estimate			
Attack maneuver	0	LOCATION OF SOURCE			
Preparation of def site	0	Local Washington		0.05	1
Attack warning	0	Carlisle	20		
Maximum effective ranges	0	Eastern Seaboard			
Air/artillery support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			----- 10.5
Ammunition supply	0				
Rounds fired by wpn type	0				
Results					
US casualties	1				
Enemy tanks lost	0				
Narrative	1				
Resource data					
Maps	1				
Total	13				

Hotton, Belgium (Engagement 23)

CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
DATA AVAILABILITY	10	0.50	5
Weather			
Obstacles	0		
Meteorological data	0		
Time of day	2	0.15	0
Light	2		
Terrain	0		
Composition			
US	1	0.10	0.5
German	0		
Disposition			
Defensive weapons	0		
Strength			
US	1		
German	0		
German Inf w/attack	0		
US AF weapons	1		
German tanks	0		
US tanks	1	0.10	0
Tactics			
Arty bombardment	0		
Attack maneuver	0		
Preparation of def site	0		
Attack warning	0		
Maximum effective ranges	0		
Air/arty support	0		
Overwatch vs maneuver tks	0		
Logistics			
Ammunition supply	1		
Rounds fired by wpn type	0		
Results			
US casualties	1		
Enemy tanks lost	0		
Narrative	0		
Resource data			
Maps	0		
Total	10		
DETERMINATION OF WEAPON EFFECTIVENESS			
Excellent data for individual weapon			
Fair amount of data for indiv. weapon			
Cannot determine by indiv. weapon	0		
Cannot determine for any weapon			
LEVEL OF DATA DETAIL			
Company/Platoon			
Battalion			
Brigade/Regiment			
Division			
Army/Corps	5		
ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
Can Isolate			
Isolate with Difficulty			
Must Use Judgement			
Cannot Isolate	10		
ABILITY TO JUSTIFY ESTIMATES			
No Estimation Needed			
Easily Justifiable			
Justify with Difficulty	0		
Cannot Estimate			
LOCATION OF SOURCE			
Local Washington			
Carlisle			
Eastern Seaboard			
Other US	20	0.05	1
Germany			
Total Weighted Score			7.5

Sbeitla, Tunisia (Engagement 1)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	10	0.50	5
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon		0.15	0
Light	2	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon	0		
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	0.5
German	0	Battalion			
		Brigade/Regiment			
		Division			
		Army/Corps			
Disposition		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT	5		
Defensive weapons	0	Can Isolate		0.10	1
		Isolate with Difficulty			
Strength	1	Must Use Judgement			
US	0	Cannot Isolate	10		
German	0	ABILITY TO JUSTIFY ESTIMATES			
German Inf w/attack	1	No Estimation Needed		0.10	0
US AT weapons	0	Easily Justifiable			
German tanks	1	Justify with Difficulty			
US tanks	0	Cannot Estimate	0		
Tactics		LOCATION OF SOURCE			
Arty bombardment	0	Local Washington		0.05	1
Attack maneuver	0	Carlisle			
Preparation of def site	0	Eastern Seaboard	20		
Attack warning	0	Other US			
Maximum effective ranges	0	Germany			
Air/arty support	0	Total Weighted Score			7.5
Overwatch vs maneuver tks	0				
Logistics					
Ammunition supply	1				
Rounds fired by wpn type	0				
Results					
US casualties	1				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	10				

Sbeitla, Tunisia (Engagement 2)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	5	0.50	2.5
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon		0.15	0
Light	2	Cannot determine by indiv. weapon	0		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	0.5
US	1	Company/Platoon			
German	0	Battalion			
Disposition		Brigade/Regiment			
Defensive weapons	0	Division	5		
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	1
US	0	Can Isolate			
German	0	Isolate with Difficulty			
German Inf w/attack	0	Must Use Judgement	10		
US AT weapons	0	Cannot Isolate			
German tanks	0	ABILITY TO JUSTIFY ESTIMATES		0.10	0
US tanks	0	No Estimation Needed			
		Easily Justifiable			
Tactics		Justify with Difficulty			
Arty bombardment	0	Cannot Estimate	0		
Attack maneuver	0	LOCATION OF SOURCE		0.05	1
Preparation of def site	0	Local Washington	20		
Attack warning	0	Carlisle			
Maximum effective ranges	0	Eastern Seaboard			
Air/artillery support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			5
Ammunition supply	0				
Rounds fired by wpn type	0				
Results					
US casualties	0				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	5				

Djebel el Guessa, N. Africa (Engagement 4)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	5	0.50	2.5
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon		0.15	0
Light	2	Cannot determine by indiv. weapon	0		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	0.5
US	1	Company/Platoon			
German	0	Battalion			
Disposition		Brigade/Regiment			
Defensive weapons	0	Division	5		
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	1
US	0	Can isolate			
German	0	Isolate with Difficulty			
German Inf w/attack	0	Must Use Judgement	10		
US AT weapons	0	Cannot isolate			
German tanks	0	ABILITY TO JUSTIFY ESTIMATES		0.10	0
US tanks	0	No Estimation Needed	0		
		Easily Justifiable			
Tactics		Justify with Difficulty			
Arty bombardment	0	Cannot Estimate			
Attack maneuver	0	LOCATION OF SOURCE		0.05	1
Preparation of def site	0	Local Washington	20		
Attack warning	0	Carlisle			
Maximum effective ranges	0	Eastern Seaboard			
Air/arty support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			5
Ammunition supply	0				
Rounds fired by wpn type	0				
Results					
US casualties	0				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	5				

St. Jean-de-Daye, France (Engagement 5)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	5	0.50	2.5
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon		0.15	0
Light	2	Cannot determine by indiv. weapon	0		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	0.5
US	1	Company/Platoon			
German	0	Battalion			
Disposition		Brigade/Regiment			
Defensive weapons	0	Division	5		
		Army/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	1
US	0	Can Isolate			
German	0	Isolate with Difficulty			
German Inf w/attack	0	Must Use Judgement	10		
US AT weapons	0	Cannot Isolate			
German tanks	0	ABILITY TO JUSTIFY ESTIMATES		0.10	0
US tanks	0	No Estimation Needed			
		Easily Justifiable			
Tactics		Justify with Difficulty	0		
Arty bombardment	0	Cannot Estimate			
Attack maneuver	0	LOCATION OF SOURCE		0.05	1
Preparation of def site	0	Local Washington	20		
Attack warning	0	Carlisle			
Maximum effective ranges	0	Eastern Seaboard			
Air/artillery support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			-----
Ammunition supply	0				5
Rounds fired by wpn type	0				
Results					
US casualties	0				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	5				

St. Jean-de-Daye, France (Engagement 6)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	5	0.50	2.5
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	2	Fair amount of data for indiv. weapon		0.15	0
Light	2	Cannot determine by indiv. weapon	0		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL			
US	1	Company/Platoon		0.10	0.5
German	0	Battalion			
Disposition		Brigade/Regiment			
Defensive weapons	0	Division	5		
		Amy/Corps			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
US	0	Can Isolate		0.10	1
German	0	Isolate with Difficulty			
German Inf w/attack	0	Must Use Judgement	10		
US AT weapons	0	Cannot Isolate			
German tanks	0	ABILITY TO JUSTIFY ESTIMATES			
US tanks	0	No Estimation Needed		0.10	0
		Easily Justifiable			
Tactics		Justify with Difficulty			
Arty bombardment	0	Cannot Estimate	0		
Attack maneuver	0	LOCATION OF SOURCE			
Preparation of def site	0	Local Washington		0.05	1
Attack warning	0	Carlisle	20		
Maximum effective ranges	0	Eastern Seaboard			
Air/artillery support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			----- 5
Ammunition supply	0				
Rounds fired by wpn type	0				
Results					
US casualties	0				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	----- 5				

Murringen, Belgium (Engagement 19)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	0	0.50	0
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	0
Meteorological data	0	Excellent data for individual weapon			
Time of day	0	Fair amount of data for indiv. weapon			
Light	0	Cannot determine by indiv. weapon	0		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	0
US	0	Company/Platoon			
German	0	Battalion			
		Brigade/Regiment			
		Division			
Disposition		Army/Corps			
Defensive weapons	0	No details available	0		
		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	1
Strength		Can isolate			
US	0	Isolate with Difficulty			
German	0	Must Use Judgement			
German Inf w/attack	0	Cannot isolate	10		
US AI weapons	0				
German tanks	0	ABILITY TO JUSTIFY ESTIMATES		0.10	0
US tanks	0	No Estimation Needed			
		Easily Justifiable			
Tactics		Justify with Difficulty			
Arty bombardment	0	Cannot Estimate	0		
Attack maneuver	0				
Preparation of def site	0	LOCATION OF SOURCE		0.05	1
Attack warning	0	Local Washington			
Maximum effective ranges	0	Carlisle			
Air/arty support	0	Eastern Seaboard	20		
Overwatch vs maneuver tks	0	Other US			
		Germany			
Logistics		Total Weighted Score			-----
Ammunition supply	0				2
Rounds fired by wpn type	0				
Results					
US casualties	0				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	0				

Gela, Sicily (Engagement 32)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	0	0.50	0
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS		0.15	0
Meteorological data	0	Excellent data for individual weapon			
Time of day	0	Fair amount of data for indiv. weapon			
Light	0	Cannot determine by indiv. weapon	0		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	0
US	0	Company/Platoon			
German	0	Battalion			
		Brigade/Regiment			
		Division			
Disposition		Army/Corps			
Defensive weapons	0	No details available	0		
		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	1
Strength		Can Isolate			
US	0	Isolate with Difficulty			
German	0	Must Use Judgement	10		
German Inf w/attack	0	Cannot Isolate			
US AT weapons	0	ABILITY TO JUSTIFY ESTIMATES		0.10	0
German tanks	0	No Estimation Needed			
US tanks	0	Easily Justifiable			
		Justify with Difficulty			
Tactics		Cannot Estimate	0		
Arty bombardment	0	LOCATION OF SOURCE		0.05	1
Attack maneuver	0	Local Washington			
Preparation of def site	0	Carlisle	20		
Attack warning	0	Eastern Seaboard			
Maximum effective ranges	0	Other US			
Air/artillery support	0	Germany			
Overwatch vs maneuver tks	0	Total Weighted Score			2
Logistics					
Ammunition supply	0				
Rounds fired by wpn type	0				
Results					
US casualties	0				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	0				

Arnhem (Engagement 35)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	0	0.50	0
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon		0.15	0
Time of day	0	Fair amount of data for indiv. weapon			
Light	0	Cannot determine by indiv. weapon	0		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	0
US	0	Company/Platoon			
German	0	Battalion			
		Brigade/Regiment			
		Division			
Disposition		Army/Corps			
Defensive weapons	0	No details available	0		
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	1
US	0	Can isolate			
German	0	Isolate with Difficulty			
German Inf w/attack	0	Must Use Judgement	10		
US AT weapons	0	Cannot isolate			
German tanks	0	ABILITY TO JUSTIFY ESTIMATES		0.10	0
US tanks	0	No Estimation Needed			
		Easily Justifiable			
Tactics		Justify with Difficulty			
Arty bombardment	0	Cannot estimate			
Attack maneuver	0	LOCATION OF SOURCE		0.05	1
Preparation of def site	0	Local Washington	20		
Attack warning	0	Carlisle			
Maximum effective ranges	0	Eastern Seaboard			
Air/artillery support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			2
Ammunition supply	0				
Rounds fired by wpn type	0				
Results					
US casualties	0				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	0				

Clervaux (Engagement 38)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	0	0.50	0
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon			
Time of day	0	Fair amount of data for indiv. weapon		0.15	0
Light	0	Cannot determine by indiv. weapon			
Terrain	0	Cannot determine for any weapon	0		
Composition		LEVEL OF DATA DETAIL			
US	0	Company/Platoon		0.10	0
German	0	Battalion			
		Brigade/Regiment			
		Division			
Disposition		Army/Corps			
Defensive weapons	0	No details available	0		
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT			
US	0	Can Isolate		0.10	1
German	0	Isolate with Difficulty			
German Inf w/attack	0	Must Use Judgement			
US AT weapons	0	Cannot Isolate	10		
German tanks	0				
US tanks	0	ABILITY TO JUSTIFY ESTIMATES			
		No Estimation Needed		0.10	0
Tactics		Easily Justifiable			
Arty bombardment	0	Justify with Difficulty			
Attack maneuver	0	Cannot Estimate	0		
Preparation of def site	0				
Attack warning	0	LOCATION OF SOURCE			
Maximum effective ranges	0	Local Washington		0.05	1
Air/arty support	0	Carlisle			
Overwatch vs maneuver tks	0	Eastern Seaboard	20		
		Other US			
Logistics		Germany			
Ammunition supply	0	Total Weighted Score			-----
Rounds fired by wpn type	0				2
Results					
US casualties	0				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	0				

Marnach (Engagement 39)

DATA AVAILABILITY	Actual score	CRITERIA	RAW SCORE	WEIGHT	WEIGHTED SCORE
Weather		DATA AVAILABILITY	0	0.50	0
Obstacles	0	DETERMINATION OF WEAPON EFFECTIVENESS			
Meteorological data	0	Excellent data for individual weapon		0.15	0
Time of day	0	Fair amount of data for indiv. weapon			
Light	0	Cannot determine by indiv. weapon	0		
Terrain	0	Cannot determine for any weapon			
Composition		LEVEL OF DATA DETAIL		0.10	0
US	0	Company/Platoon			
German	0	Battalion			
Disposition		Brigade/Regiment			
Defensive weapons	0	Division			
		Army/Corps	0		
		No details available			
Strength		ABILITY TO ISOLATE COMBAT ACTION/ENGAGEMENT		0.10	1
US	0	Can Isolate			
German	0	Isolate with Difficulty			
German Inf w/attack	0	Must Use Judgement	10		
US AT weapons	0	Cannot Isolate			
German tanks	0	ABILITY TO JUSTIFY ESTIMATES		0.10	0
US tanks	0	No Estimation Needed			
		Easily Justifiable	0		
Tactics		Justify with Difficulty			
Arty bombardment	0	Cannot Estimate			
Attack maneuver	0	LOCATION OF SOURCE		0.05	1
Preparation of def site	0	Local Washington	20		
Attack warning	0	Carlisle			
Maximum effective ranges	0	Eastern Seaboard			
Air/arty support	0	Other US			
Overwatch vs maneuver tks	0	Germany			
Logistics		Total Weighted Score			2
Ammunition supply	0				
Rounds fired by wpn type	0				
Results					
US casualties	0				
Enemy tanks lost	0				
Narrative	0				
Resource data					
Maps	0				
Total	0				

Rochefort (Engagement 40)

APPENDIX F

TANK DESTROYER BATTALION RECORD SEARCH

TANK DESTROYER BATTALION RECORD SEARCH

The Tank Destroyer Battalion (TDBN) Records are one of the better sources for the detailed anti-tank data required for this project. Because of this, SAIC reviewed all the TDBN that were in the European Theater of Operation during World War II. This review identified those units for which good, detailed data was kept. In selecting future engagements for detailed data collection, more priority should be given to those engagements for which the best TDBN data can be found. This will optimize the chances of developing multiple anti-tank combat actions.

The following is a brief summary of the findings of the TDBN records.

Tank Destroyer Battalion Records

TDBN Records at Fort Knox, Kentucky

First US Army, Artillery Section - Tank Destroyer at Anzio, [Call Number 801 A 6].

First Armored Division - Battle of Bizerte, 9 June 1943, [Call Number 801 AD 408]. Too large scale.

First Armored Regiment 3d Battalion Combat Lessons 26 July 1944, [Call Number 801 AR 605]. Abstract fun to read through.

First Tank Group, [Call Number 801 T 501].

First Tank Destroyer Group, After Action Report, [Call Number 801 TD 502].

Roer River Offensive (2d AD), [Call Number 802 AD 407A].

Corps, US Army (2d Corps), [Call Number 802 C 301].

Tunisia, 1 January - 15 March 1943, [Call Number 802 C 302].

Notes of the Bastogne Operation by General Patton, 16 January 1945, [Call Number 803 A 9]. Too general.

Fourth Tank Destroyer Group, [Call Number 804 T 501].

Fifth Tank Destroyer Group to 9 May 1945, After Action Report, [Call Number 805 T 503].

Fifth Tank Destroyer Group, After Action Report, [Call Number 805 T 504].

1st AD, 6th AI Regiment Mistakes Made and Lessons Learned November 1942 - January 1944, June 1944, [Call Number 806 AI 631]. Wrong theater (Philippines).

Sixth Tank Destroyer Group, US Army (13th Corps) - After Action Report, [Call Number 806 T 503].

Seventh Army Combat Observer's Report, 1945 AGF Report by Col Clyde E. Steele, [Call Number 807 A 5].

Corps US Army (7th Corps) - German opposite 7th Corps, Sept 1944 by Lucian Heichler - based on German records, to support Charles MacDonald on Siegfried Line Study, [Call Number 807 C 307]. Missing.

Corps US Army (7th Corps) - Tank Destroyers in Action 1944, [Call Number 807 C 308]. Nothing of suitable detail.

Seventh Tank Destroyer Group, After Action Report, 19-31 December 1944, [Call Number 807 T 502].

Seventh Tank Destroyer Group, Corps, US Army (8th Corps) - After Action Report, [Call Number 807 T 502]. Missing.

Eighth Tank Destroyer Group After Action Report, November 1944, January -May 45 (ETO) [Call Number 808 T 501].

Ninth Tank Destroyer Group After Action Report, September-November 1944, January-May 1945 (ETO) [Call Number 809 T 501].

Corps (12th Corps) - After Action Report Ninth Tank Destroyer Group, [Call Number 809 T 501].

Corps US Army (12th Corps) - German counterattack in Twelfth Corps Section 19 September - 1 October 1944, [Call Number 812 C 307].

Armored Groups, 20th, 24th Corps 20th Armor Group - TFACS Report 314.7 2 August 1945, [Call Number 820 AG 501].

Twenty-third Tank Destroyer Group After Action Report, December 1944-May 1945, [Call Number 823 T 501].

607th Tank Destroyer Battalion

607th Tank Destroyer Battalion After Action Report, June 1944 - April 1945 [Call Number 8607 TD 101 AAR #575 U 847.6]. Towed TDs from 15 December 1943 to 21 November 1944 - some information copied.

609th Tank Destroyer Battalion

609th Tank Destroyer Battalion After Action Report, October 1944 - January 1945, [Call Number 8609 TD 101 AAR 847.7]. Fought at Bastogne - January 1945 info copied - December 1944 info missing.

610th Tank Destroyer Battalion

610th Tank Destroyer Battalion After Action Report August-October 1944, December 1944, [Call Number 8610 TD 101]. From 5 December 1943 to 11 October 1944 - Mortain area copied all - copied some information, Mortain and Ardennes. The Ardennes information may be no good - SP battalion then.

612th Tank Destroyer Battalion

612th Tank Destroyer Battalion After Action Report, July - December 1944, February 1945, April - May 45, [Call Number 8612 TD 101 AAR #452 847.9]. Moschau/Hofen/Honsfeld/Dom Butgenbach - Copied some (December 1944).

630th Tank Destroyer Battalion

630th Tank Destroyer Battalion After Action Report, August - November 1944, January - May 1945, [Call Number 8630 TD 101 AAR #615 U 847-12]. Marnach/Reuler/Lutzkampen/Wiltz/Longvilly/Sibret December 1944 records destroyed. Copied January 1945 records of fighting vicinity Bastogne - very broad descriptions but might help.

644th Tank Destroyer Battalion

644th Tank Destroyer Battalion After Action Report, July 1944 - 9 May 1945 [Call Number 8644 TD 101]. Rocherath/Wirtzfeld (small pont) - Copied at Vicki's request (December 1944).

691st Tank Destroyer Battalion

691st Tank Destroyer Battalion After Action Report, January 1945, March - May 1945, [Call Number 8691 TD 101]. Towed from 22 December 1943 to March 1945 - with 87th ID fought German armor on 7 January 1945 at Gerimout, but no real details given so no records were copied.

772d Tank Destroyer Battalion

772d Tank Destroyer Battalion After Action Report, December 1944 - April 1945, [Call Number 8772 TD 102]. Rochefort with 83d ID - not copied - too broad.

802d Tank Destroyer Battalion

802d Tank Destroyer Battalion After Action Report, August 1944 - April 1945 [Call Number 8802 TD 101]. With 4th ID in Ardennes - St. Malo - Dinard, France vicinity Consdors - Dickweiler in Ardennes - never engaged enemy armor so no records were copied.

805th Tank Destroyer Battalion

805th Tank Destroyer Battalion After Action Report, January 1943 - April 1945, [Call Number 8805 TD 101]. Africa, Italy - not copied - too broad - Kasserine, Gafsa, Sbeitla, Marjene.

807th Tank Destroyer Battalion

807th Tank Destroyer Battalion After Action Report, October 1944 - March 1945, [Call Number 8807 TD 101]. Saarlautun Bridgehead, XX Corps - not copied - too broad.

808th Tank Destroyer Battalion

808th Tank Destroyer Battalion After Action Report, September 1944 - May 1945, [Call Number 8808 TD 101]. Towed until 27 January 1945 - Attached to 80th ID, 5th ID in Ardennes, 2d Cavalry Group in Ardennes - no defensive actions during period covered by records so no records copied.

817th Tank Destroyer Battalion

817th Tank Destroyer Battalion After Action Report, January - April 1945 [Call Number 8817 TD 101]. Towed until 27 March 1945 - Hurtgen - Germeto with 8th ID, 99th ID - no contact with enemy armor during period so no records were copied.

821st Tank Destroyer Battalion

821st Tank Destroyer Battalion After Action Report, January - December 1944, February - April 1945, [Call Number 8821 TD 101 AAR #97 847 -56]. Towed until 18 December 1944 - St. Lo, Brest, Siegfried Line, Julich with 30th ID - has some decent tactical maps - copied some from Julich period (November 1944).

823d Tank Destroyer Battalion

823d Tank Destroyer Battalion After Action Report, June - August 1944, December 1944 - April 1945, [Call Number 8823 TD 101]. Towed until 18 December 1944. Copied parts relating to Mortain, Ardennes.

823d Tank Destroyer Battalion After Action Report, August 1944, [Call Number 8823 TD 101 (AAR #588U)].

After Action Report, December 17-26 1944, [Call Number 8823 TD 101 823d TD Bn AAR (AAR #588 U)].

After Action Report, January 14-18 1945, [Call Number 8823 TD 101 823d TD Bn AAR (AAR #588 U)].

824th Tank Destroyer Battalion

824th Tank Destroyer Battalion After Action Report, August 1942 - September 1945, [Call Number 8824 TD 101]. Towed until 11 March 1945 - Bitche/St. Avold area, December 1944 - January 1945 - not copied - too broad but does contain a lot of 6-digit and some 8-digit map locations.

TDBN Records at Suitland, Maryland

601st Tank Destroyer Battalion

TDBN-601-0 to 0.07 September 30, 1943 Box 23543

TDBN-601-0 (45748) Map -- "Cook's Tour" of the locations where the 601st operated. P.28, at Anzio on 29 Feb for "big German attack".

TDBN-601-0 (27661) History of 601st Tank Destroyer Battalion.
p.46, campaigns:

- Algerian -- French Moroccan 8 Nov - 11 Nov 42
- Tunisian 17 Nov - 13 May 43
- Sicilian 9 Jul - 17 Aug 43
- Naples - Foggia 9 Sep 43 - 21 Jan 44
- Rome - Arno 22 Jan - 14 Sep 44
- S. France 15 Aug 14 Sep 44
- Rhineland 5 Sep 44 - 21 Mar 45
- C. Germany 22 Mar - 8 May 45

TDBN-601-0.7 Unit Journal, 28 January - 19 March 1943.
No real encounters recorded.

TDBN-601-0.3 Unit Journals, 22 January - 31 December 1944.
Rhineland; relieved 636th TDBN; Strassbourg operations; "Summary of Damage Inflicted on Enemy" reported 14 tanks destroyed, but with little details; reports German trick of substituting at night an operational tank for a knocked-out one -- Us responded by shelling all such objects repeatedly.

NOTE: The "Summary of Damage Inflicted on Enemy" (SDIE) will appear in many of the S-3 Periodic Summary Reports -- especially when there is anti-tank action. These appear to be used in place of the regular artillery summary reports which address types of fire and munitions consumptions. The appearance of SDIEs in the TDBN folders is a sign of possible records of engagements against tanks and an aid to dates which can be examined in the more detailed daily Journal of Events (sometimes called Incidents, Messages, and Reports), or narrative monthly reports. The S-3 Summary Reports usually follow the lengthy Journals -- daily entries on legal-size paper. The Journals are often hand-written and hard to read. Recommend examining the summary reports first, before going to the detail in the journals.

TDBN-601-0.3 Unit Journals, 16-24 March 1943.

TDBN-601-0.3 Unit Journals, 5-20 September 1943.

TDBN-601-0.3 Unit Journals, October - November 1943.

TDBN-601-0.3 Unit Journals, January, February, March 1945.

NOTE: in general, the 601st TDBN Journals are not too specific nor mention many anti-tank actions by the TDBN guns. There is sporadic detail with some limited potential for the study.

TDBN-601-0.7 October 1 1943 to February 29 1944 Box 23544

TDBN-601-0.7 Unit Journals, October 1943.

TDBN-601-0.7 Unit Journals, November 1943.

TDBN-601-0.7 Unit Journals, December 1943.

TDBN-601-0.7 Unit Journals, 22-31 January 1944.

TDBN-601-0.7 Unit Journals, February 1944.

NOTE above applies.

TDBN-601-0.7 March 1, 1944 to May 31, 1944 Box 23545

TDBN-601-0.7 Unit Journals, March 1944.

S-3 Report for 29 Feb-1 Mar 44 claimed tanks kills and has overlay -
- COPIED for example. S-3 reports for most of the days in the month,
very active month. S-3 Report for 9-10 Mar also claims kills and was
COPIED. A News Sheet mentions knocking-out 40 German tanks in Anzio
-- COPIED. 27 Mar '44 Journal, p.3, claims 2 tanks destroyed by
805th TDBN at 1200 yds. S-3 28 Mar Report COPIED as another example.

TDBN-601-0.7 Unit Journals, April 1944.

Italian action -- not much on possible anti-tank (AT).

TDBN-601-0.7 Unit Journals, May 1944.

As above.

TDBN-601-0.7 June 1, 1944 to October 31, 1944 Box 23546

TDBN-601-0.7 Unit Journals, June 1944.

Italy, not much action.

TDBN-601-0.7 Unit Journals, July 1944.

Unit in training.

TDBN-601-0.7 Unit Journals, August 1944.

Operation Dragon.

TDBN-601-0.7 Unit Journals, September 1944.
South France, some action but not AT.

TDBN-601-0.7 Unit Journals, October 1944.
France, Alsace; Bazooka KO's, MK IV on 13 October, but no gun kills noticed.

TDBN-601-0.7 November 1, 1944 to February 28, 1945 Box 23547

TDBN-601-0.7 Unit Journals, November 1944.

TDBN-601-0.7 Unit Journals, December 1944.

TDBN-601-0.7 Unit Journals, January 1945.

TDBN-601-0.7 Unit Journals, February 1945.
All above: France, not much on AT.

TDBN-601-0.7 March 1, 1945 to May 11, 1945 Box 23548

TDBN-601-0.7 Unit Journals, March 1945.
unit training on 4 Mar
Operation "Earthquake" 12 Mar to penetrate Siegfried Line in Bitche-Hagenau area. HQ 3D INF DIV Field Order of 13 Mar '45 mentions 601st and 776th TDBNs in same operation.
Also the a "Tank Destroyer Daily Report" (TDDR) printed form with typed entries first appears in this folder. Examples of 15-16 Mar, 18-19 Mar, and 29-30 Mar 45 TDDRs are COPIED. These report and briefly describe tank kills. They generally give the date, TDBN Company, type of weapon, location, and type of tank killed. The reports also usually give the type of ammunition and number of rounds fired, but not specifically against the tank alone. Sometimes distances are noted.

NOTE: this is the first appearance of this form noticed so far. Evidently the Divisions or Corps determined the need, format, and use of such formatted reports on the TDBNs activities. These forms are by far the best noted by this researcher. Frequently the reports are accompanied by map overlays -- some of the overlays were reproduced on the old mimeographs and are too faded to xerox well.

TDBN-601-0.7 Unit Journals, April 1945.
Part of CCB, 14th Armored Division attached to 3d ID, XC Corps.
Copied 8 April TDDR claiming 3 tank kills by A Company.

TDBN-601-0.12 October 1, 1944 to October 18, 1944 Box 23549

TDBN-601-0.12 Unit Messages, 1-6 October 1944.

TDBN-601-0.12 Unit Messages, 7-12 October 1944.

TDBN-601-0.12 Unit Messages, 13-18 October 1944.

Difficult reading, no apparent detail on operations.

TDBN-601-0.12 October 19, 1944 to TDBN-601-1.13 Box 23550

TDBN-601-0.12 Unit Messages, 25-31 October 1944.

TDBN-601-1.8 Roster 1943-45: empty.

TDBN-601-1.13 General Orders, 1941, 1943-1945.

602nd Tank Destroyer Battalion

**** The 602nd TD Bn documented their actions very well.****

TDBN-602-0.1 to TDBN-602-0.3 November 30, 1944 Box 23551

TDBN-602-0.1 (28612) History Tank Destroyer Battalion 15 December 1941 - 31 December 1943.

This folder contains information in the following categories: Original Unit, changes in organization during 1943, Strength of commissioned and enlisted officers, stations of unit, marches, campaigns, battles CO in important engagements, losses in action, distinguished men, and photographs. I found no useful information in this folder.

TDBN-602-0.3 (12659) Operation Report -- 602nd Tank Destroyer Battalion September 1944.

From 1 Sept to 30 Sept 1944, the following information was found: Operations, administration, supply, and evacuation. On Sept 23, 1944, B Co knocked out 2 anti-tank guns in the vicinity of Moncourt. In the Statistical Summary of Operations the number of losses in equipment (inflicted and sustained) is given. There is a Summary of Supplies. I found in the Unit Journal the following information: Summary of Daily Operations, S-1 Periodic Rpts, Field Orders, and Incoming and Outgoing Messages. The Unit Journal gives day-by-day occurrences of the battalion. This folder contains overlays and the rest of it is filled with messages.

TDBN-602-0.3 (12659) Operation Report -- 602nd Tank Destroyer Battalion October 1944.

This folder contains the Unit Journal with day-by-day occurrences. Losses of equipment inflicted and sustained during 1 Oct to 31 Oct 44 is included. The S-3 Periodic Rpt gives the weather conditions. Overlays are present. This folder contains Reports of Indirect Fire Missions where HE means high explosives, APC represents anti-tank, and SMK means smoke. This report tells the number of rounds fired, the target, and the effect (if known). This folder also has packages of outgoing messages from 1 Oct to 31 Oct 1944 (most of which are not opened)

TDBN-602-0.3 After Action Report -- 602nd Tank Destroyer Battalion November 1944.

This folder contains the Unit Journal with a commendation from the Headquarters of the 26th Inf Div, a Summary of Supplies, the S-3 Periodic Reports from 1 Nov to 30 Nov 1944, and Reports of Indirect Fire Missions and Overlays. Finally, this folder has packages of outgoing messages from 1 Nov to 30 Nov 1944.

TDBN-602-0.3 December 1, 1944 to May 8, 1945 Tank Destroyer Box 23552

TDBN-602-0.3 (12659) Historical Records -- 602nd TD Bn -- December 1944.

This folder contains the following information: Summary of Administrative Matters, Summary of Operations, Summary of Supply, Summary of Evacuation, Unit Journal, S-3 Periodic Reports, and Incoming and Outgoing Messages. It also has the losses inflicted and sustained from 1 Dec to 31 Dec 1944.

TDBN-602-0.3 (12659) Historical Summaries - 602nd TD Bn - January-March -8 May 1945.

This folder is in the same format as above. It has the Unit Journal, S-3 Periodic Report with weather conditions, Overlays, and Messages from Jan, Mar, and May of 1945.

TDBN-602-0.7 to TDBN-602-1.13 Tank Destroyer Box 23553

TDBN-602-0.7 Journal and File 602nd TD Bn 13 April 1942 - 8 March 1944.

From the Unit Journal, the 602nd TD Bn is located in the vicinity of Spencer, Tennessee on Mar 7, 1944. This folder contains overlays. The Unit Journal from May 17, 1943 puts the 602nd in the vicinity of Camp McCoy. This Journal is in the format of incidents, messages, orders, etc. The Unit Journal from Feb 27 to Mar 15, 1943 puts the 602nd in Watersmeet, Michigan. It also gives the weather report.

- TDBN-602-1.13 General Orders -- 602nd Tank Destroyer Bn 1942-45.
- Camp McCoy, Wisconsin
- Camp Hood, Texas - Sept 10, 1942 -- No info of use
to this study

603d Tank Destroyer Battalion

The 603rd Tank Destroyer Battalion records are not very well documented with details.

TDBN-603-0.1 to TDBN-603-0.3 Tank Destroyer Box 23554

TDBN-603-0.3 (14250) After Action Report -- 603d Tank Destroyer Bn 21 July-31 Dec 1944.

This folder does not contain detailed information. It has day-by-day occurrences that tells who was killed in the form of incidents, messages, orders, etc.

TDBN-603-0.3 (28623) Operation Report -- 603d TD Bn May-Dec 1944.

This folder contains the Consolidated Report of Tank Destroyer Operations which tells the number of rounds expended. This report tells the platoon, date, weapons, and range. The only example found was the following: 2nd Platoon, Nov 16, 1944 -- 1 Mark IV or assault gun, 2 AT guns, 1 88 mm AT gun, 3 pillboxes (1 round w/T 105 fuze, range 2000 yards) (action took place vic Thonville, France) This report also contains "Aiming Data Chart for 76 mm guns M1A1 and M1A2 on Gun Motor Carriage M18" with the caption: "To Use Chart: Get Estimated Range and Locate in Column Under Ammunition Being Fired"

TDBN-603-0.3 (28623) Operation Report -- 603d TD Bn January - 6 May 1945.

This folder has the same chart as the previous folder (Consolidated Report of Tank Destroyer Operations).

TDBN-603-0.3 (14250) After Action Report -- 603d TD Bn (SP) January - 9 May 1945.

The After Action Reports are not detailed at all.

TDBN-603-0.1 (28621) History -- 603d Tank Destroyer Bn Yr 42.

This folder has the number of personnel reported. No useful information for this study.

TDBN-603-0.1 (28621) History -- 603d TD Bn Yr 43.

Same as above.

TDBN-603-0.1 (28621) History -- 603d TD Bn Yr 44.

Same as above.

TDBN-603-0.1 (28621) History -- 603d TD Bn Yr 45.

This folder has Awards and Strength.

TDBN-603-0.7 to TDBN-603-1.13 Tank Destroyer Box 23555

TDBN-603-0.7 (28615) Unit Journal -- 603d TD Bn 25-30 September 1944.
This folder contains the Unit Journal in the format of incidents, messages, orders, etc.

TDBN-603-0.7 (28615) Unit Journal -- 603d TD Bn October 1944.
Same as above.

TDBN-603-0.7 (28615) Unit Journal -- 603d TD Bn November 1944.
Same as above.

TDBN-603-1.13 General Orders -- 603d TD Bn 1943-1945.
No detailed or useful information.

605th Tank Destroyer Battalion

TDBN-605-0 (TOWED) to TDBN-605-1.13 Tank Destroyer Box 23556

There is a picture book on the History of the 605th TD Battalion 1941-1945. no real useful information found in this book.

TDBN-605-0.3 (21409) After Action Report -- 605th TD Bn February, March, April, May 1945.
This folder contains a record of events but no detailed information.

TDBN-605-1.13 General Orders -- 605th TD Bn 1943-1944.
This folder contains the rules and regulations of the battalion.

606th Tank Destroyer Battalion

TDBN-606-0.1 to TDBN-606-1.13 Box 23557

TDBN-606-0.1 (28634) History-606th TD Bn 14 July 1941 - 27 February 1945.
The 606th was inactivated 28 February 1945 at Camp Hood, Texas. Mostly inspection information is contained in the folder.

TDBN-606-0.20 (28633) 606th News -- 606th TD Bn September-October 1944.
Just a newsletter is in this folder.

TDBN-606-1.13 General Orders -- 606th TD Bn 1941-1945.
This folder does not contain any useful information.
It has details on fire fighting and prevention and Guard Orders.

607th Tank Destroyer Battalion

Box 23558

TDBN 607-0 Actions for December 1941 to May 1945.

Battle with the Jerries- Tank Busters- 607th TDBN. published history, gives some actions for Dec 41 to May 45. For ex, Le Bourg, Saar-Moselle, # tanks destroyed but not what type guns.

TDBN 607-0.1 Unit History 607th TD Bn.

Unit History, no info

TDBN 607-0.1 Information on 607th TD Bn.

Fatter file, gives rounds expended every few hours, talks of # tanks seen and KOd.

TDBN 607-0.3 Operation Report July-August 1944.

Operation Report Jul-Aug 44; has operation report with enemy material destroyed and rounds fired; situation map overlays for July only

TDBN 607-0.3 Operation Report September-December 1944.

Operation Report Sep-Dec 44, report dated 1 Jan 45 for 1 Dec 44 tells of tank kill by Co A, 2nd platoon; Bn CP at Teterchen, Co A has 2 guns at St. Barbara and 2 guns at Guisingen "A tank holding up the Inf in the town of St. Barbara (8223) was finally destroyed by this plat. The tank was so situated in the town that direct fire could not be brought upon it without undo exposure to its fire. A bazooka team, headed by Sgt Holcomb was sent out to try and destroy the tank. The team hit the tank with a round of bazooka, but failed to disable it. The tank withdrew, but later returned to its former position. Further attempts to get to the tank with the bazooka failed. Lt. Knapp then fired several rounds of 90 MM through the buildings and causing a dust-smoke screen in the vic of the tank. Under the protection of this screen Lt. Knapp placed his destroyer in a position and fired through the smoke-dust screen at the location of the tank. Later reports from the Inf and a tank officer confirmed the destruction of the en tank. The destroyed tank was a Mark IV."

18 Jan - gives tanks killed by 3d platoon - 4 rounds hit and penetrated and destroyed 1 tank

15-21 Aug - tells of killing tanks but not how much ammo of gun type

2 Sept - tank action

18-19 Aug 1944 - Battle of Le Bourg St Leonard-Chambois (15 to 21 Aug) - 1st plat, Co C, 607th TDBN at Chambois with 359th Inf (??ID or AD). good description of tanks knocked out. Falaise Pocket, 358th something ??

TDBN 607-0.7 June to December 1944 Box 23559

Folder June No information.

Folder July Messages, map overlays with gun positions, fire missions.

Folder September Messages, map of positions, consolidated reports of TD operations for 1 week, probably too aggregated.

Folder November Map overlays with defensive gun positions, consolidated reports of TD operations, personnel, intel (enemy equipment destroyed), opns (rounds fired, status of vehicular equipment).

Box 23560

TDBN 607-0.7 to MD-0.2 Message files and map overlays.

609th Tank Destroyer Battalion

Box 23562

TDBN 609-0.1 History - 609th TDBN, 15 December 1941 - 31 December 1943.
Nothing.

TDBN 609-0.3 After Action Report - 609th TDBN, September - December 1944.

COPIED--daily account of enemy tanks destroyed. 28 Dec 44 -
Co "C" - very good narrative account of events.

TDBN 609-0.1 History - 609th TDBN, 1 January - 13 November 1945.
Nothing.

TDBN 609-0.3 After Action Report - 609th TDBN, January - May 1945.
Narrative accounts of enemy tanks encountered and destroyed. Some include range between forces.

TDBN 609-0.7 Journal and File - 609th TDBN, December 1944 - 10 May 1945.
Same information as A/A report (Jan-May 45) but not as well organized.

Box 23563

TDBN 609-0.7 Journal and File, 11 May - June 1945.
Nothing.

TDBN 609-1.13 General Orders, 1942-1945.
Nothing.

TDBN 609-1.14 Special Orders, 1 - 21 November 1944.
Nothing.

TDBN 609-2.2 S-2 and S-3 Journal - 609th TDBN, November 1944.
Nothing.

TDBN 609-2.2 S-2 and S-3 Journal - 609th TDBN, December 1944.
Periodic report Co "A" destroyed 1 light tank on 25 Dec 44.

TDBN 609-2.2 S-2 and S-3 Journal - 609th TDBN, January 1945.
Some daily accounts of enemy engagements for Company "C". Cumulative list of enemy material destroyed. ie Co "C" at 031530 3 Jan 45 to the Longchamps-Monerville area to aid in repelling an enemy Inf-Tank attack. Co "C" destroyed 1 MK VI and 2 MK V's.

Box 23564

TDBN 609-2.2 S-2 and S-3 Journal, February 1945.
Silver Star awarded to LT DK Hagens for 19 Dec 44.
Gives account of defense of Bastogne - Knocked out 6 enemy tanks without losing a single destroyer.

TDBN 609-2.2 S-2 and S-3 Journal, March 1945.
5 Mar - Co "B" destroyed 1 MK IV at 1100 hr, range 3200 yds. Confirmation of destroyed tanks by 609th TDBN on 10 Mar 45. More accounts given on S-3 periodic reports. Accounts give date and ammo used. Some give the exact time of day.

TDBN 609-2.2 S-2 and S-3 Journal, April 1945.
Nothing.

TDBN 609-2.2 S-2 and S-3 Journal, 1 - 10 May 1945.
Nothing.

TDBN 609-3.2 S-3 Journal, 20 - 30 September 1944.
Nothing.

TDBN 609-CO(C)-0.3 After Action Report - Co "C" - 609th TDBN, 18 December 1944 - 2 January 1945.
19-20 Dec 44--Co "C" knocked out 13 MK V's, 1 MK VI.
Narrative account.

TDBN 609-CO(C)-0.3 After Action Report - Co "C" - 609th TDBN, 14 - 18 January 1945.
Enemy Inf and Tank attack -- 1 Tank destroyed.

610th Tank Destroyer Battalion

Box 23565

Contains printed book of the unit history which was not too specific. AARs indicated Sep 44 action at Ste Genevieve, in France; mention receiving new M-36 (90mm) TDs in Oct 44 [I could not determine if these were used in the subsequent Dec 44 action -- if so, would be an interesting comparison to the M-10s which make up most of actions]. Considerable detail on Dec 44 Battle of the Bulge.

Box 23566

Contains unit journals for Dec 44. On 11 Dec at 1230, Co A knocked out a tank with 3 rounds, at 500 meters, south of Moronville; reported one personnel casualty. Many other action described on 11 Dec: Co A got 2 tanks, one each for 1st and 2d platoons at 1745; Co C, 1st plat, got one tank with one shot, then got hit by a German 88 -- lots more! On 12 Dec, Co A, 1st Plat got another tanks and fired on 4 others at 1200, expended 110 rounds of APC and 10 HE.

Boxes 23567 through 23569

Contain many map overlays, G-2 Periodic Reports, and G-3 Situational Reports.

611th Tank Destroyer Battalion

Box 23570

Contains a book of unit history.

Box 23571

Has more history narrative and discusses Co A in heavy action in Battle of the Bulge on 17 - 21 Dec 44.

Boxes 23572 and 23573

Have journals and map overlays. Not much mentioned about direct AT action.

614th Tank Destroyer Battalion

Box 23574

TDBN 614-0.1 History 614th TDBN, June 1943 - November 1946.
No mention of armor engagements.

TDBN 614-0.1 History 614th TDBN, January 1943 - May 1945.
Nothing.

TDBN 614-0.2 Unit History, May 1945.
Unit is stationary...no action.

Box 23575

TDBN 614-0.3 Narrative Report - 614th TDBN, December 1944.
Nothing.

TDBN 614-0.3 Report of Operations - 614th TDBN, 8 May - September 1945.
Nothing.

TDBN 614-0.3 Narrative Report - 614th TDBN, January - February - 10 May 1945.
Nothing.

TDBN 614-1.13 General Orders, January 1944 - August 1946.
Nothing.

TDBN 614-3.2 S-3 Journal - 614th TDBN, December 1944.
Nothing.

TDBN 614-3.2 S-3 Journal (pt 1) - 614th TDBN, January 1945.
Reports of enemy tanks destroyed in Jan 45 on daily reports. ie for 232400A Jan to 242400A Jan 5 tanks destroyed "arty destroying 2 and AT guns claiming 3 more."

Box 23576

TDBN 614-3.2 S-3 Journal (pt 2) - 614th TDBN, January 1945.
Reports some enemy tanks destroyed. Does not disclose whether TD or Arty.

TDBN 614-3.2 S-3 Journal (pt 3) - 614th TDBN, January 1945.
Nothing.

Box 23577

TDBN 614-3.2 S-3 Journal - 614th TDBN, 1 - 14 February 1945.
S-2 Reports 636th TDBN destroyed 4 tanks in the period 022400A Feb 45 to 032400A Feb 45.

TDBN 614-3.2 S-3 Journal - 614th TDBN, 15 - 28 February 1945.
Nothing.

Box 23578

TDBN 614-3.2 S-3 Journal - 614th TDBN, 1 - 15 March 1945.
Nothing.

TDBN 614-3.2 S-3 Journal - 614th TDBN, 16 - 31 March 1945.
Accounts of German armor destroyed by bazooka, arty, or plane. None by TD's.

Box 23579

TDBN 614-3.2 S-3 Journal - 614th TDBN, April 1945.
Nothing.

TDBN 614-3.2 S-3 Journal - 614th TDBN, 1 - 10 May 1945.
Nothing.

TDBN 614-3.2 S-3 Journal - 614th TDBN, 11 - 31 May 1945.
Nothing.

626th Tank Destroyer Battalion

In spite of info in OB book, this unit was in the Pacific.

628th Tank Destroyer Battalion

Box 23581

TDBN 628-0 History-Victory TD-628th 1941 - 9 May 1945.
Written (book) history of Battalion and Companies.
Includes engagements.

TDBN 628-0.1 History, 15 December 1941 - 9 May 1945.
Gives tabulation of enemy losses for 2 Aug 44 - 8 May 45 (Summary).

TDBN 628-1.13 General Orders, 1942-45.
Nothing.

TDBN 628-Co(A)-0.2 History Co "A," 27 March - 27 April 1945.
Gives 3 Campaigns - Northern France, Germany, Belgium and subsequent battles - Argentan - Falaise Gap 12-14 Aug 44; Seine River 19-24 Aug 44; Wallendorf - Stockem area, Germany 13-20 Sept 44; Hurtgen Forest, Germany 23 Nov - 22 Dec 44; Manhay-Grandmenil, Belgium 24-27 Dec 44. Also includes KIA, WIA.

TDBN 628-0.3 After Action Report, January - April 1945.
Enemy equipment destroyed - Jan, Mar (no enemy armor engaged in Feb). Daily Journal of Battalion activities 1 Jan - 31 Jan 45. Maps of Company positions 1 Apr 45; 1 May 45.

TDBN 628-0.7 Unit Journal 628th TDBN, July - August, October 1944.
Daily account of battalion operations and results of.

TDBN 628-1.01 "Analysis of Personal Losses and Reinforcements for Separate TDBN Under Combat Conditions"- Cpt Sparks, S-1 August 1944 - January 1945.

Battalions battle casualties Aug 44 - Jan 45. Daily Strength.

TDBN 628-0.3 After Action Report - 628th TDBN, August - December 1944. Tabulations of enemy losses inflicted for Aug-Dec 44. Battle summaries for Aug-Dec. Daily record of events Sept, Nov. Nominal list of US KIA, WIA.

TDBN 628-0.7 Unit Journal - 628th TDBN, February 1945. Narrative account of daily battalion activities 1-28 Feb 45.

629th Tank Destroyer Battalion

Box 23582

TDBN 629-0.1 Unit History, Year 44. Monthly strength, stations, marches (purpose, length, roads, weather, remarks), Campaigns (Normandy, Northern France, Germany [no. 1]), Battles. Battles--Caumont Sector (France) 4-22 Jul 44; Mortain (France) 8-13 Aug 44; Falaise Pocket-Argentan (France) 16-20 Aug 44; Northeastern France and Luxembourg (France) 31 Aug-14 Sept 44; Siegfried Line (no. 1) 14 Sept - 4 Oct 44; Siegfried Line (no. 1) 8 Oct - 25 Oct 44; Schneefel (Germany) 30 Oct - 1 Dec 44; Duren (Germany) 8-20 Dec 44; Ardennes Salient (Belgium) 25-31 Dec 44. Also includes campaign, forces engaged, and results. Map showing Bn location 2 Jul - 31 Dec 44.

TDBN 629-0.7 Journal 629th TDBN, July 1944. Journal of incidents, messages, orders, etc... from 0001 1 Jul 44 - 1850 31 Jul 44.

TDBN-629 629th Tank Destroyer Battalion After Action Report, August 1944.

TDBN 629-0.7 Journal 629th TDBN, August 1944. Journal of incidents, messages, orders, etc... from 0001 1 Aug 44 - 2400 31 Aug 44. Includes A/A report showing destruction/damage to enemy equipment.

TDBN 629-0.7 Journal 629th TDBN, September 1944. Nothing.

TDBN 629-0.7 Journal 629th TDBN, October 1944. Nothing.

TDBN 629-0.7 Journal 629th TDBN, November 1944. Nothing.

TDBN 629-0.7 Journal 629th TDBN, December 1944.
Nothing.

TDBN 629-0.3 After Action Report - 629th TDBN, January 1945 - June 1945.
File shows for each month enemy units in contact,
reserves enemy activity, and strength; own situation,
strength, and casualties.

TDBN 629-0.3 After Action Report - 629th TDBN, July - December 1944.
July - Anti-tank missions performed 6-22 July 44.
Aug-Sept--Assignment to First US Army. Armor attacks
8-13 Aug with destruction/damage claimed against enemy
equipment. US equipment destroyed.
Oct-Dec--Resume of operations, overlay of enemy
situation/own situation.

Box 23583

TDBN 629-0.7 Journal - 629th TDBN, January 1945.
Journal of incidents, messages, orders, etc... Action
taken. No mention of any armor engagement.

TDBN 629-0.7 Journal - 629th TDBN, February 1945.
Nothing.

TDBN 629-0.7 Journal - 629th TDBN, March 1945.
Nothing.

TDBN 629-0.7 Journal - 629th TDBN, April 1945.
Daily journal of incidents, messages, orders, etc...
Troop overlays, US operations for the period. Troop
lists.

Box 23584

TDBN 629-0.7 Journal - 629th TDBN, May 1945.
Nothing.

TDBN 629-0.7 Journal - 629th TDBN, June 1945.
Nothing.

TDBN 629-0.7 Journal - 629th TDBN, September 1945.
Nothing.

TDBN 629-0.7 Journal - 629th TDBN, 1 May - 27 November 1945.
Handwritten--illegible.

TDBN 629-0.9 Unit Report - 629th TDBN, February 1945.
No mention of enemy armor contact.

TDBN 629-0.12 Messages - 629th TDBN, September 1944.
Nothing.

TDBN 629-1.13 General Orders - 629th TDBN, 1943, 1945.
Nothing.

TDBN 629-3.1 S-3 Periodic Report, 31 January - February 1945.
Daily report of US front lines, location of troops,
information of adjacent troops, weather, operations for
period, combat efficiency, and results of operations.
No mention of enemy armor.

630th Tank Destroyer Battalion (TOWED)

Box 23585

TDBN 630-0.1 History 630th TDBN, 15 December 1941 - June 1943.
Nothing-organization of unit.

TDBN 630-0.1 History 630th TDBN, 15 December 1941 - 31 December 1943.
Nothing.

TDBN 630-0.3 After Action Report - 630th TDBN, June 1945.
Nothing--no enemy contact.

TDBN 630-0.7 Unit Journal - 630th TDBN, August - September, November
1944.
5 Nov 1944, 1430 hr - "A" Co KO'd MK IV tank.

TDBN 630-0.7 Unit Journal - 630th TDBN, January 1945.
Bottom p. 10--8 Jan 45-Co "A" destroyed 1 MK V, 4 MK IV;
Co "B" destroyed 1 MK V, 1 MK IV.

TDBN 630-0.7 Unit Journal - 630th TDBN, February - May 1945.
Has narrative account of M-36 TD destroying panther
tanks. Co "C" 16 April 45 - 2 MK V tanks destroyed.

Box 23586

TDBN 630-1.13 General Orders - 630th TDBN, 1945-1946.
Nothing.

TDBN 630-2.1 S-2 Periodic Report - 630th TDBN, June 1945.
Nothing.

TDBN 630-2.2 S-2 Journal - 630th TDBN, June 1945.
Nothing.

TDBN 630-3.2 S-3 Journal - 630th TDBN, June 1945.
Nothing.

TDBN 630-3.1 S-3 Periodic Report - 630th TDBN, June 1945.
Nothing.

TDBN 630-0.9 Unit Report, January - May 1945.
Reports give precise account of TD's in action against
Germans. Which platoons destroyed how many tanks.

TDBN 630-0.9 Unit Report - 630th TDBN, July - December 1944.
Precise reports given throughout folder on engagements.

631st Tank Destroyer Battalion

Box 23587

TDBN 631-0.1 History - 631st TDBN, 15 December 1941 - 31 December 1943.
Nothing.

TDBN 631-0.1 History, Year 44.
Nothing--no contact.

TDBN 631-0.1 History, Year 45.
Nothing.

TDBN 631-0.7 Unit Journal, 17 February - 15 December 1945.
Nothing.

TDBN 631-1.13 General Orders - 631st TDBN, 1942-1945.
Nothing.

TDBN 631-3.18 Troop Movement Orders, 14 December 1941 - 30 November
1945.
Nothing.

TDBN 631-0.7 Unit Journal, 26 August 1942 - 24 February 1945.
Nothing.

633d Tank Destroyer Battalion

Box 23592 TDBN-633-0 to 1.13

This unit was involved in the ETO in early 1945, too late for the
big AT events. Skimpy files but contained good TDBN organization
charts.

634th Tank Destroyer Battalion

TDBN-634-0.8 11-27-44 to 1-9-45 Tank Destroyer [Box 23605].
This box does not include December 1944.

635th Tank Destroyer Battalion

Box 23611 TDBN-635-0.3 to 635-MD-0.1

This unit was at Omaha Beach in June 1944. Interesting entry in After Action Report (AAR) for 4 Aug 44, "Due to the nature of the operations, and the disorganization of enemy tank units, our firing companies have not fired at enemy tanks." AARs indicated lots of indirect fire missions through Oct 44.

On 25 Dec 44, there is a detailed description AT action in Belgium. Co A, 3d Plat under 1st Lt John B. Thompson knocked out 3 tanks. -
- 6 Jan 45 Appendix to narrative for Dec 44 AAR, folder 635-0.3.

636th Tank Destroyer Battalion

Box 23612 TDBN-636-0.3 9-1-43 to 9-30-44

Operations Reports. Sep-Dec 43, during Operation AVALANCHE, some AT action. First combat on 12 Sep 43 at Salerno, Italy. 14 Sep, Co B knocked out 7 tanks and Co C got 7 tanks -- not much detail on it -- folder 636 0.3 for Nov 44. Unit goes on to Papido River and Cassino. But missions shift to mostly indirect fire. Unit deployed at Anzio: 23 May Co A destroys 1 Mk VI; 26 May, Co B gets 2 Mk IVs, Co C get 1 Mk IV; 28 May Co B drove off enemy tanks. --folder 636-0.3 for May 44. Unit at Rome in June 44. Redeployed to southern France in Aug 44 and worked its way north. On 26 Sep 44, at Crest-Bourg, got 3 Mk IVs. Detailed message logs, but narratives are weak.

Box 23613 TDBN-636-0.3 10-10-44 to 12-31-44

Road blocking missions in Oct and Nov 44 Vosges, In the Rhine River Valley in Dec 44, mostly in US assaults.

Boxes 23614 and 23615

Continue with more of the same into Germany -- no significant AT action mentioned.

638th Tank Destroyer Battalion

Box 23621 TDBN-638-0.1 to .3

Unit arrive in France 7 Sep 44, and engaged in the Rhineland, Ardennes, and Central Europe. Records are full of brief messages and lack detail.

Boxes 23622 through 23630

Are generally the same. They contain the Journals (.7 series) with message logs and a considerable number of map overlays -- but no good AT action.

641st Tank Destroyer Battalion

Box 23634 TDBN-641-0.1 to 1.13

Unit history shows Aug 44 presence in France, casualties start in Dec 44. On 26 Feb 45 Co B kills Mk IV tanks at Hasselsweiler, Gr, with no casualties to itself. On 2 Mar 45 3d Plat, Co C gets 1 Mk IV at Oberkassel. These seem to be easy pick-offs of late-war actions. Unit claims to be the first TDBN to reach the Rhine.

644th Tank Destroyer Battalion

Box 23635 TDBN-644-0 to .3 11-30-44

Printed booklet of unit history. Operations Reports for Jul and Aug 44 cover actions in Hurtgen Forest. History material for year '44 makes brief mention of killing five Mk Vs at Bergstein, but no specific date.

Box 23636 TDBN-644-0.3 (operations reports) 12-1-49 to 3-31-45

Operations reports. Operation orders with overlays no other detail.

Boxes 23637 and 23639

Have AARs with considerable detail, but actions seem to be mostly operating as assault guns in support of infantry attacks.

645th Tank Destroyer Battalion

Box 23650 TDBN-645-0.7 to 0.12 4-1-45

All in 1945, not AT action.

Box 23651 TDBN-645-1.13 to 2.2 9-30-43

Covers earlier period in Italy. Many map overlays but no narratives of encounters.

Box 23652 TDBN-645-2.2 to 0.3 10-1-43

Journals covering Operation DRAGON and after. No AT action discussed.

Boxes 23639 through 23642

Contain very detailed journals (.7 series) with map overlays from Jan to Jul 44 in Italy.

Boxes 23643 through 23649

Contain the same starting with southern France and on up into Germany. The detailed journals are really daily logging of incidents, messages, and orders. A quick review indicated very isolated encounters with German tanks in these documents and no detail in engagements.

648th Tank Destroyer Battalion

Box 23654 - TDBN-648-0.1 to 649 1.13

The 648th got to ETO in Jan 45, too late for good AT action. The 649th never left the US.

654th Tank Destroyer Battalion

Box 23658

Contains typed and detailed history of the unit. It covers the Aug 44 Mortain actions.

Boxes 23659 through 23672

Most of these boxes contain thick S-3 Journal files and many map overlays. Several tank kills are briefly mentioned, starting.

Box 23662

Had S-2 Jnl that contained good daily summary of German attack in Dec 44.

Box 23665

Had Sept 44 Unit Report with detailed encounter and overlay, indicated some tank kills in Sep 44.

656th Tank Destroyer Battalion

Box 23674

Contained history and indicates arrival in ETO combat in Feb 45.

Boxes 23675 through 23678

Of journals and AARs indicate no action against tanks.

691st Tank Destroyer Battalion

Boxes 23686 and 23687

History shows Oct 44 arrival in France. Journals indicate unit employed mostly as supplemental field artillery.

692nd Tank Destroyer Battalion

TDBN-692-0.3 692nd Tank Destroyer Battalion After Action Report.

B Co involved in action; Lists GE destroyed: 2 MK III by 10 APC, 1 MK III damaged by 10 APC; 6 GE KIA, 2 GE POW.

TDBN-692-0.12 Battalion Message Log, [Box 23693].

Listing of message traffic.

701st Tank Destroyer Battalion

TDBN-701-0.1 From Oran to Tunisia History 701st TD Bn, 15 December 1941

- May 1945 and a Diary of 701st TD Bn, [Box 23699].
Typed draft; mostly N. Africa; little or no combat. The diary tells which weapons have been received, weather reports, increase in troops, and a citation for the 701st TDBN (Company "B" and the 2nd Reconnaissance Platoon, Reconnaissance Company) at El Guettar and Sbeitla that tells the number of tanks destroyed. (12/41 - 5/45) The diary does not exactly explain the location of the 701st TDBN at any particular time.

TDBN-701-0.3 Box 23700

TDBN-701-0.3 Operations Report, September 1942 - May 1945.

Rough draft history, read from back to front, general info; Italian Campaign; Anzio.

TDBN-701-0.3 Operations Report, September 1942 - May 1945.

Sept 42 in N. Ireland; Oct in Africa at Sidi Bou Zid, Sbeitla (Feb 14-Feb 43); Kasserine (Feb 19-Mar 43) defending approaches to Tebessa; El Guettar (24 Mar-11 Apr 43); N. Tunisia (19 Apr-9 May 43).

Considerable narrative but no apparent detailed action; appears that 701st has more to say for this period than 601st which had skimpy records for Africa.

TDBN-701-0.3 Operations Report, 3 May - 31 October 1943.

Italy: Mt. Camino-Migano, attached to Division Artillery of 1st AD.

TDBN-701-0.3 Operations Report, 1944.

Italy, Le Cave; attached to Task Force Allen with mission to capture Hill Porchio; in action at Anzio (1 Apr-5 Apr); killed some tanks on 27 May -- but not much more described

NOTE: 701st TDBN's records lack the specific TD report forms found in some of the record of other TDBNs. This makes it difficult to glean out the anti-tank encounters. Also it means that there will be uneven recording of details such as unit, ammunition, etc.

TDBN-701-0.3 Operations Report, January 1944 - April 1945.
Bound book on lessons learned -- general information.

TDBN-701-0.3 Operations Report, June - December 1944.
Last two folders describe little action.

TDBN-701-201.7 to 702-1.13 Box 23701

TDBN-701-0.7 Daily Journals, June 1945.
Training in Italy.

TDBN-701-1.13 General Orders, 1941-1945.
Not much on detailed AT action.

TDBN-701-2.2, 4-1-44 to 7-31-44 Box 23702

TDBN-701-2.2 S-2 Journal, April 1944.

TDBN-701-2.2 S-2 Journal, May 1944.

TDBN-701-2.2 S-2 Journal, June 1944.

TDBN-701-2.2 S-2 Journal, July 1944.
Not much on AT action.

TDBN-701-2.2 8-1-44 to 12-31-44 Box 23703

TDBN-701-2.2 S-2 Journal: four each for April, September, October, December 1944. Little of value for A2D2 Study.

702d Tank Destroyer Battalion

Box 23714

TDBN 702-0.1 History - 702d Tank Destroyer Battalion Year 44.
COPIED -- Strengths, marches (Tactical, length, points between which marched and dated), Campaigns (name, duration, purpose, authority), Battles (name, place, dates, forces engaged, results); Battle names: Normandy, Northern France, Germany. Nominal list of Commanding officers, KIA, WIA, in each battle with dates.

TDBN 702-0.1 History - 702d Tank Destroyer Battalion Year 45.
COPIED -- Strengths, marches (Tactical, length, points between which marched and dated), Campaigns (name, duration, purpose, authority), Battles (name, place,

dates, forces engaged, results); Battle names: Ardennes, Rhineland, Central Europe. Nominal list of Commanding officers, KIA, WIA, in each battle with dates.

TDBN 702-0.1 Brief History of 702d Tank Destroyer Battalion.
Accounts of battles with damage to enemy.

TDBN 702-0.1 S-3 Report September-November 1944, April-June 1945.
Location of troops. Operations for period, weather and visibility, combat efficiency.

TDBN 702-0.1 After Action (A/A) Report July 1944 - June 1945.
Gives documented accounts of troops, enemy killed, equipment destroyed on which dates.

TDBN 702-0.1 Operational Report, 1-30 July 1945.

TDBN 702-2.01 After Action Report - 702d Tank Destroyer Battalion, June - Oct 1944.
Ammo used, enemy killed/destroyed. Own KIA, WIA.

TDBN 702-2.01 After Action Report - 702d Tank Destroyer Battalion, January - May 1945.
Ammo used, enemy killed/destroyed. Own KIA, WIA.

TDBN 702-2.14 Enemy Material Captured and Destroyed, June - December 1944.
COPIED -- Dates and materials, location, enemy KIA and captured.

TDBN 702-3.1 Periodic Reports, 19 July - 28 September 1944.
Some accounts of tanks destroyed.

TDBN 702-3.1 S-3 Periodic Reports - 702d Tank Destroyer Battalion, March 1945.
Operations for period, combat vehicles in operation.

TDBN 702-3.11 Letter Instruction - 702d Tank Destroyer Battalion, July - August 1945.
Nothing.

TDBN 702-3.4 Messages - 702d Tank Destroyer Battalion, March 1945.
Nothing.

TDBN 702-3.13 Training Schedules - Co "A", 11-13 December 1944.
Nothing.

TDBN 702-3.20 Assignments, 27 October 1944.
Attachments and Dispositions of the 702d TDBN.

TDBN 702-3.23 Firing Reports, 9-17 July 1944.

Dates, type of target, coordinates, time, number of rounds and type, number of guns adjusted on, corrected coordinates, concentration number, if observed.

703d Tank Destroyer Battalion

TDBN-703-0.2 to TDBN 703-3.11 Box 23715

Folder 6872 Historical Report 703d TDBN January-May 1945.

Historical Report 703d TDBN Jan-May 45. on 26th Mar, p.11, rounds, range, tank kills; on 30th Mar p.14-15, 2 tanks killed at 1500 yds

Folder 47696 S-3 Journal, messages only, no information.

Folder History No information.

704th Tank Destroyer Battalion

Box 23716

History records a 20 Sep - 7 Oct 44 tank battle against the 11 PzD around Arracourt, France. Unit was at Bastogne in Dec 44, went on in to Saar. Claims 73 total tank kills. Some detail in Feb 45 S-3 Journal: engaged a 3-tank attack in Bannholz Woods while attached to 301st IR.

Box 23717

Had detail but no AT action.

705th Tank Destroyer Battalion

Box 23718

History shows arrival in France in Jul 44; fought at Bastogne in Dec 44 and destroyed 39 tanks during 19-26 Dec -- but no details. Folder on commendations and awards contains S-3 Report and map overlay for 25-26 Dec 44 action at Bastogne to support Distinguished Unit Citation -- good detail in it.

Box 23719

Contains mix of orders, and S-2 files -- not too informative.

771st Tank Destroyer Battalion

Box 23723

AAR records indicate action as artillery during Siegfried Line operations.

772d Tank Destroyer Battalion

Box 23724

Arrived in ETO Dec 44, records indicate little action through Apr 45.

773d Tank Destroyer Battalion

TDBN-773-0.3 773 TD BN After Action Report [Box 23725].
Provides GE losses.

TDBN-773-0.9 773 TD BN Journal [Box 23725].
Journal same as Infantry Regiment.

774th Tank Destroyer Battalion

TDBN-774-0.1 to TDBN-774-0.3 Tank Destroyer Box 23739

TDBN-774-0.1 History 774th TD Bn 15 December 1941 - 8 May 1945.
This folder contains a unit history in the format of a combat diary. It tells the amounts of rounds fired on German artillery although these are not the dates we are looking for.

TDBN-774-0.3 (8751) After Battle Report -- 774th TD Bn January - March 1945.
This report gives the day-by-day occurrences of the battalion and tells the number of rounds fired and tanks observed. It seems to have good details. It has consolidated operations report for 25 December to 31 December 1944 which contains the status of vehicular equipment and the number of rounds fired.

TDBN-774-0.3 (8751) After Action Report -- 774th TD Bn April 1945.
This report gives losses in equipment, enemy losses, combat efficiency, and results of operations.

TDBN-774-1.13 to TDBN-775-1.13 Tank Destroyer Box 23740

TDBN-774-1.13 General Orders -- 774th TD Bn 1943-1945 January 1945.
The 774th TDBN went from Self-propelled to Towed on 7 May 1943. This folder contains the rules and regulations of the battalion.

TDBN-774-3.2 (47494) S-3 Journal -- 774th TD Bn September-December 1944.
This folder has the consolidated report of TD Operations including personnel, intelligence, operations, and the status of vehicular equipment. The 5th Division Artillery report tells the ammunition used. This S-3 journal is in the form of incidents, messages, orders, etc. It has the number of rounds fired.

776th Tank Destroyer Battalion

TDBN-776-0 to TDBN-776-0.6 Box 23741

TDBN-776-0 Informal History, July 1941 - 8 May 1945.
COPIED map of locations of Bn.

TDBN-776-0.1 History, July - May 45.
Typed draft; N. Africa, Rapido River, France -- long narrative but not detailed.

TDBN-776-0.1 History, May 45.
Mention of setting-up numbers of roadblocks, but not AT action noted.

TDBN-776-0.3 Operation Report, July, November 1944.
No AT combat actions, but evidently some test were conducted with detailed records --COPIED as possible value for the purposes of the study. the reports were dated in December though located in a folder annotated November. One report addresses the effectiveness of 57mm anti-tank gun on Mk V tank; the report dated 29 Dec asses the 90mm/M36 TD weapon system following combat experience; of particular note is par 4.c. (p.2) summary of firing results against German tanks during an encounter in the vicinity of Rauwiller --very specific on where armor was struck, at what distance, and effect.

TDBN-776-0.3 Operation Report, January - 11-31 May 1945.
Long narrative, but no AT detail noted.

TDBN-776-0.6 Narrative of TDBN, May 1944.
Nothing new.

TDBN-776-0.3 Operation Report, 26 September - 31 December 1943.
As above.

TDBN-776-.7 11-1-43 to 2-28-45 Box 23742

TDBN-776-0.7 Unit Journals, November-December 1943.
Italy, no tank kills.

TDBN-776-0.7 Unit Journals, December 1944.
Some tank engagements, no details.

TDBN-776-0.7 Unit Journals, January, July, November 1944.
Some tank engagements, some details.

TDBN-776-0.7 Unit Journals, January 1943.
Some tank engagements, some details.

TDBN-776-0.7 Unit Journals, November-December 1943.
Some tank engagements, some details.

TDBN-776-0.7 3-1-45 to TDBN 776-MD-0.1 Box 23743

TDBN-776-0.7 for March 1945, April 1945, 1-10 May 1945, 19-30 April 1944.
Do not identify any AT engagements.

TDBN-776-1.3 General Orders, 1945.
No engagements.

TDBN-776-3.17 Operation Instructions (OIs), October-April 1945 and
February-April 1945.
No engagements.

TDBN-776-0.1 History of Medical Detachment, December 1941-November 1945.
No engagements.

801st Tank Destroyer Battalion

Boxes 23745 through 23749

In ETO in July 44. AAR, and journals full of map overlays and brief
log of events -- appears to have been used as field artillery.

Boxes 23750 through 23752

S-3 journals and overlays -- unit used mostly as field artillery.

802d Tank Destroyer Battalion

Boxes 23753 through 23756

Unit in ETO in late 44 to early 45. Records detail mostly
logistics, reflect little combat.

803d Tank Destroyer Battalion

Boxes 23764 through 23763

Mostly S-3 journals with map overlays -- unit used mostly in field
artillery roll.

805th Tank Destroyer Battalion

TDBN-805-0.1 to TDBN-805-0.7 10-31-43 Box 23768

TDBN-805-0.1 Battalion History, 3 February 1941 - 2 November 1945.
arrived Anzio 12 March
Bn History for Mar 1 - Mar 31, 1944,
"Summary of Events for March 44" (dated 4 Apr 44) mentions: "One
Plat "C" Co 701st fired 200rnds harassing fire during night. Recon
Co established night patrol on roads. 2 Plat "A" Co KO'd 1 tank vie
Carano. 1st Plat "B" Co KO'd 1 MK VI, 3 MK IV's, 1 probable -- 85
rnds expended. 2 Plat, "B" Co KO'd 2 tanks, one MK IV (1 type
unknown), 1 probable destroyed -- 100 rnds expended." more action
reported SEE COPY.
TDBN inactivated 25 Oct 45.

TDBN-805-0.2 History, 1-30 September 1944.
Very skimpy.

TDBN-805-0.2 Monthly History, June 1945.

TDBN-805-0.3 Operation Report, January-August, October-December 1944.
History as of December 1944, under 88th ID; in Italy; started year
with 3" towed guns but became Self-propelled in August 1944.

TDBN-805-0.3 Operation Report, January-June 1945.
Resting on Lake Garda.

TDBN-805-0.7 Unit Journals, March 1943.
AT combat not clearly identifiable in the records in this folder,
time will be required to decipher handwritten records of events.

TDBN-805-0.7 Unit Journals, April 1943.
No indication of AT combat, time required to decipher handwritten
records -- does not appear worth it for the moment. Same for the
following folders.

TDBN-805-0.7 Unit Journals, 5-6, 18, 29 May 1943.

TDBN-805-0.7 Unit Journals, October 1943.

TDBN-805-0.7 11-1-43 to 12-31-43 Box 23769

TDBN-805-0.3 Battalion History and Casualty Reports, 17 January-31
December 1943.
Kasserine and Sbeitla in February 1943.

TDBN-805-0.7 Unit Journals, November 1943.
No specific AT combat, time required to decipher handwritten records
does not appear to be worth it for the moment.

TDBN-805-0.7 Unit Journals, December 1943.
As above.

TDBN-805-0.7 1-1-44 to 2-29-44 Box 23770

TDBN-805-0.7 Unit Journals, January 1944.
Italy, Rapido River on 18 January; supported French; handwritten in pencil log of events and messages -- difficult reading.

TDBN-805-0.7 Unit Journals, February 1944.
As above.

NOTE: It appears that the 805th was employed as field artillery; most records are in the form of field artillery reports pertaining to conducting harassing and counter-battery fire.

TDBN-805-0.7 3-1-44 to 4-30-44 Box 23771

TDBN-805-0.7 Unit Journals, March 1944.

Embarked for Anzio.

COPIES made of some TD Status Reports (11 Mar and 31 Mar) which indicate AT kills by TDBNs 601, 294, 645, 701, and 805 at Anzio Beachhead.

TDBN-805-0.7 Unit Journals, April 1944.

Starting 31 Mar there are formatted, printed "Status of Tank Destroyer Units Assigned to VI Corps" reports; while they do not reflect AT action on the part of the 805th, they do make reference to other TDBNs in the area: attached to 34th ID are C co of 701st TDBN, the 601st TDBN, and C co/805th TDBN; attached to Corps Reserve: 894th TDBN(-); to SSF: 805th TDBN(-); to 1st AD: 701st TDBN(-); to 1st Br ID: A co 894th TDBN; to 5th Br ID: B co 894th TDBN; to 45th ID: 645th TDBN.

NOTE: 805th TDBN had M-10 towed 3" guns, this may explain why they were used mainly as field artillery.

TDBN 894 made tank kills on 8-9 and 20-21 Apr 44; TDBN on 14-15, 20-21, and 21-22 Apr 44.

29 Apr 44 reports totals of Tank kills as: 40 for 601st, 14 for 894th, 29 for 645th, 7 for 701st, and 3 for 805th.

TDBN-805-0.7 8-1-44 to 8-31-44 Box 23773

TDBN-805-0.7 Unit Journals, August 1944.

In Italy; G-2 and G-3 Periodic Reports -- no AT actions.

TDBN-805-0.7 10-1-44 to 10-31-44 Box 23775

TDBN-805-0.7 Unit Journals, October 1944.

In Italy; G-2 and G-3 Periodic Reports -- no AT actions.

TDBN-805-0.7 11-1-44 to 11-30-44 Box 23776

TDBN-805-0.7 Unit Journals, November 1944.
In Italy; no AT actions.

TDBN-805-0.7 12-1-44 to 12-31-44 Box 23777

TDBN-805-0.7 Unit Journals, December 1944.
In Italy; no apparent AT actions, however penciled
entries in long log of events is difficult reading.

TDBN-805-0.7 1-1-45 to 1-31-45 Box 23778

TDBN-805-0.7 Unit Journals, January 1945.
In Italy; no apparent AT actions.

TDBN-805-0.7 2-1-45 to 2-28-45 Box 23779

TDBN-805-0.7 Unit Journals, February 1945.
In Italy; no apparent AT actions.

TDBN-805-0.7 3-1-45 to 3-31-45 Box 23780

TDBN-805-0.7 Unit Journals, March 1945.
In Italy; no apparent AT actions.

TDBN-805-0.7 4-1-45 to TDBN 805-1.13 Box 23781

TDBN-805-0.7 Unit Journals, April 1945.

TDBN-805-0.7 Unit Journals, May 1945.

TDBN-805-1.13 Gen Orders, 1942-1945.
All in box: In Italy; no AT actions.

807th Tank Destroyer Battalion

Boxes 23783 through 23796

Arrived in France Sep 44, at Metz and later campaigns in Germany -
- used mostly to supplement artillery. Records are mostly journals
with map overlays.

808th Tank Destroyer Battalion

Boxes 23798 through 23801

History indicates unit at Utah Beach in Sep 44. Journals indicate
unit employed mostly as artillery.

809th Tank Destroyer Battalion

Box 23802

History and journals are very skimpy. Records of the 811 TDBN indicate that the 809th was at Bastogne.

Box 23803

Not any better, also contain TDBN 810 records -- stayed in CONUS.

811th Tank Destroyer Battalion

Box 23804

Unit was very active at Bastogne in Dec 44. Unit got hit pretty hard and is attached to 705th TDBN on 23 Dec. All of Co C and 3d Plat of Recon Co put in for citation. Journals are hand written but have some detail.

Boxes 23805 through 23808

Are more journals and AARs.

813th Tank Destroyer Battalion

Box 23809

AAR has very good narrative covering Jun-Nov 44 combat starting from Utah Beach. Unit mostly in rear area assault gun work through July. Then in Aug it take on some German tanks. 26 Aug, the TDBN knocks out 7 or 15 German tanks which are part of a counter attack near Lainsville, France. #d Plat, Co B gets 3 tanks. Artillery fire involved also. More action on 23 and 25 August. More action on 16 Oct 44 near Marainviller. Co B kill some tanks near Leintrey on 21 Oct. On 23 Oct, Co A and Co C kill some tanks. Narrative usually gives TDBN platoon, distance, and type of rounds fired -- not always the number of rounds. Unit claims 22 tank kills as of 1 Oct 44; 13 more during Oct; 3 more in Nov. Starting in Dec, unit appears to be used in assault gun roll. Joined by 827 TDBN in Jan 45.

Boxes 23810 through 23812

Contain messages.

Boxes 23814 through 23817

Contain good map overlays.

Box 23818

Has fire missions for Co C.

814th Tank Destroyer Battalion

Boxes 23819 through 23846

History indicates unit was part of CCB near Meijel, Holland in Oct 44; at St Vith, Belgium on 18 Dec. Some AT action at the latter. From then on, it appears to have been used in direct fire support roll.

Boxes 23820 through 23846

Are journals of messages and overlays.

817th Tank Destroyer Battalion

Box 23823

History indicates unit in Northern France in Jul 44, Ardennes in Dec 44, at Hurtgen Forest in Jan 45.

Boxes 23824 through 23827

Are journals, typed, but mostly administrative, very weak on combat actions.

818th Tank Destroyer Battalion

Box 23828

History has unit at Utah Beach in Jul 44, later at Siegfried Line and on in to Saar.

Boxes 23829 through 23839

Are full of handwritten journals and map overlays. Reflect little antitank action.

820th Tank Destroyer Battalion

Box 23841

History has unit at Bastogne and St. Vith in Dec 44. Gets pounded on 19 Dec. Page 4 on Dec 44 AAR mentions 16 Dec action in vicinity of Winterspelt at 1730. Gunner of 3d Plat, Co B, sighted 5 tanks at 2000 yds, using 18 rounds of HE and APC destroyed all tanks and an ammo truck. [papers in this file in poor order].

Boxes 23842 through 23844

Cover 1945 -- not too eventful.

823d Tank Destroyer Battalion

TDBN-823 Unit Journal, August 1944.

TDBN-823 G2 Journal & File, August 1944.

Box 23847

823d TD Battalion Unit Journal, August 1944.

Box 23850

823d TD Battalion Unit Report, G-2 Periodic Report, Messages, August 1-8 1944.

824th Tank Destroyer Battalion

Boxes 23861 through 23869

Lots of information, but was one of the units coming up from southern France and saw little action against German armor.

825th Tank Destroyer Battalion

Box 23870

History very skimpy. Mentions following 823d TDBN.

827th Tank Destroyer Battalion

Box 23871

Jan 45 action near Alsace. Co B killed 3 tanks in Hattin [believe in Germany].

893th Tank Destroyer Battalion

Box 23873

Folder on history, contains a long list of citations for individuals, some possible "hero" actions vs tanks. Unit was at Siegfried Line in Eiffel area in Sept 44. Good AAR narrative for Jul-Dec 44. Hand written S-3 journals might be good if time taken to study.

894th Tank Destroyer Battalion

Boxes 23874 through 23878

In Italy, at Anzio; supported British area.

899th Tank Destroyer Battalion

TDBN-899-0 to TDBN-899-0.2 Box 23879

TDBN-899-0 July 1940 - 20 June 1945.

Bound printed unit history; N. Africa Jan 43, engaged 7th Pz Rgt, 10th Pz Div at El Guettar, pp 19-20.
p.26, Naples, Italy; p.27 England; p.34, Europe, June 44; in general, good overview narrative.

TDBN-899-0.1 History draft, 1943.

Good narrative, engagements covered on 23 Mar and 29 Mar.

TDBN-899-0.1 History, June 1944.

11 July, "12 Mk V tanks destroyed, no specifics; in general the history lack detail, however, it ques in on some dates to examine in journals: 1 Mk V on 13 Jun, 1 Mk V on 15 Jul, 1 Mk V on 16 Jul, 4 Mk IV on 17 Jul, 1 Mk V on 18 Jul, and more...

TDBN-899-0.2 Monthly history, February 1945.

Engaging strong points, not tanks.

TDBN-899-0.2 Monthly history, March 1945.

some good entries in the narrative, good order to format, look for "Enemy Material Destroyed" paragraph, then go to preceding narrative paragraph. PORTION of Monthly Unit History COPIED for EXAMPLE -- see 11 Mar 45: C company destroys 3 MK V's at 50 yds. Unfortunately, reported ammunition expended includes that used for other targets for the day; however, the detailed narratives may have some cases where this will be covered; some potential in these reports for the A2D2 study.

TDBN-899-0.2 Monthly history, April 1945.

Potential as stated above -- 3 and 4 Apr, at least.

TDBN-899-0.2 Monthly history, June 1945.

Lot of "indirect fire" and "kills unknown."

TDBN-899-0.3 Box 23880

TDBN-899-0.3 Operation Report, 15 March - 11 April 1943.

COPIED Amendment to the March Report -- reflect total kills claimed by TDBN companies for March.

TDBN-899-0.3 Operation Report, January - 3 May 1945.

Some AT action in Jan.

TDBN-899-0.3 Operation Report, 8 May - October 1945.

Not much here in AT.

TDBN-899-0.7 6-1-44 to 12-31-44 Box 23881

TDBN-899-0.3 Operation Report, January - December 1944.

Note that this folder is in the wrong box or not properly cited on box label; reports reference some tank kills in France.

TDBN-899-0.7 Unit Journals, June 1944.

Typed, easy to read, some AT action.

TDBN-899-0.7 Unit Journals, July 1944.

Detailed, typed, COPIED PART (11 July 44) of Report dated 5 Aug 44 -- note incidents at 1615 hrs and 2200 hrs.

TDBN-899-0.7 Unit Journals, August 1944.

A thick folder, lots of potential here.

TDBN-899-0.7 Unit Journals, December 1944.

Fair size, worth review in more detail if project agrees after examining examples.

TDBN-899-0.7 1-1-45 to TDBN-899-1.13 Box 23882

TDBN-899-0.7 Unit Journals, January 1945.

Some material, not too promising.

TDBN-899-0.7 Unit Journals, February 1945.

Folder empty.

TDBN-899-0.7 Unit Journals, March 1945.

Thin.

TDBN-899-0.7 Unit Journals, April 1945.

Thin.

TDBN-899-0.7 Unit Journals, December 1945.

Nothing.

TDBN-899-1.13 General Orders, 1940-1945.

Nothing of value to project study.

END COMMENTS:

The TDBN unit records do not produce too much detail on AT encounters in N. Africa. In Italy, it appears that there may be material for Anzio. Material for France and Germany is also there.

**Records of the Tank Destroyer Center (Record Group 338) Boxes 1 - 69 also researched at Suitland, Maryland.

Tank Destroyer Battalion Records at Carlisle Barracks, Pennsylvania (USAMHI)

Fifth Tank Destroyer Group History, 1 September 1942 to 9 May 1945.

**McGrann, Roy T., Captain, The 610th Tank Destroyer Battalion, 11-25
September 1944, Dieulouard Bridgehead.**